School Board Journal

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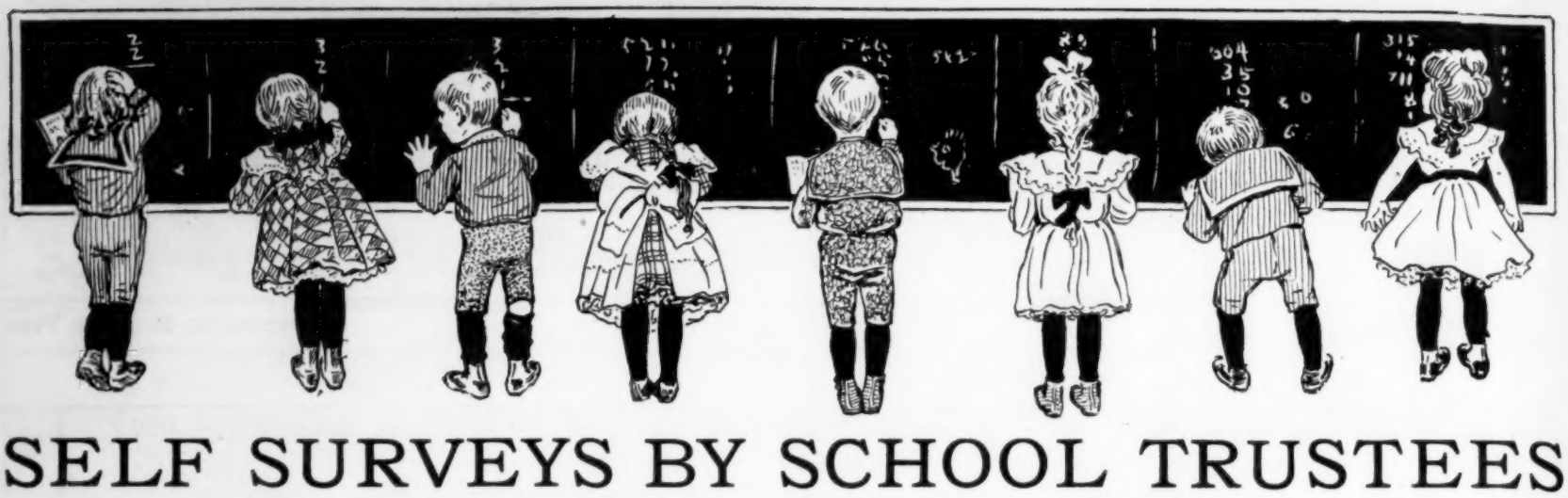
SMITH-HUGHES LAW
DIRECT MONETARY AID FROM THE NATIONAL GOVERNMENT TO THE SEVERAL STATES
ESTABLISHMENT OF A FEDERAL BOARD OF VOCATIONAL EDUCATION
APPOINTMENT OF A NATIONAL DIRECTOR OF VOCATIONAL EDUCATION
NOW! WITH THIS TO HELP ME, I CAN CLEAR OUT THE NEGLECTED FIELD AND MAKE IT AS PRODUCTIVE AND AS VALUABLE AS THE OTHER ONE!
STATE GOVERNMENT
FIELD OF VOCATIONAL EDUCATION
FIELD OF ACADEMIC EDUCATION
SPECIAL OBSTACLES
LOCAL INDIFFERENCE
LACK OF FUNDS
Harold Heaton

THE TWO FIELDS!



SELF SURVEYS BY SCHOOL TRUSTEES

William H. Allen, Director, Institute for Public Service, New York City

The strangest partner in the business of education is the school trustee. What he is, and why he is, are questions which even after reaching our present colossal expenditures for education, we have not yet answered. In fact, we are actually spending more time and money explaining to him what, and why he ought not to be, than in deciding what he should be.

Almost the only un-conventioned man in the United States is the educational trustee. We have state and national gatherings for superintendents, parent-teachers' association leaders, English teachers, astronomers, accountants, school editors, but no annual convention for school trustees. In one or two states there are so-called school board departments of state teachers' associations, but even they are apt to spend their time listening mostly to non-trustees about what trustees ought and ought not to do.

After a half century of total eclipse in the National Education Association, the trustee peeped out behind the clouds in 1915 at Oakland, held one or two good meetings in 1916 at New York City, and then at Portland in 1917 asked to be excused for living. Does this seem strong language? Please wait for my explanation. At the N. E. A. convention last July, the two-year-old department of administration announced that it had received $6,000 for its work for the General Education Board and appointed a committee of seven to spend that $6,000, *not one of whom is trustee of a school or normal school or college.*

What chance is there that the genus trustee will even be thought of by this committee except as a necessary evil to be "jollied" into innocuous desuetude?

Other movements are well under way which are hypnotizing the trustee by the process which in the moving picture world is called "double screening." You know how it works: The corporation magnate goes to sleep in his Wall Street office overlooking the Statue of Liberty and changes in quick succession into an overworked minor capitalist, a budding business man, an energetic country lawyer, an ambitious graduate, a barefoot boy free of care, and back to the magnate whose fortunes own him. So the school trustee sees himself first as a trustee of education's opportunity for his community or college; then in quick succession he double screens into a committeeman overwhelmed with details, a committeeman who delegates details, a so-called "governor," and finally a rubber-stamp which unfortunately does not change back to the trustee discharging a sacred trust.

Just as our fathers were told that "the only good Indian is a dead Indian," so we are being asked by great foundations, learned college professors and dominating superintendents and presidents to believe that the only good educational trustee is one who is dead to the world about him except as he takes his cue from his superintendent or president.

Yet is it not clear that we may expect as little from educational trustees who wear blinders as from horses when wearing blinders?

If trustees are to be uninformed about their trust, it is probably better on the whole to have them chloroformed so that they will not be eternally preventing others from promoting school welfare.

But why should it be assumed that trustees will not inform themselves so that they will be able to arrive at independent conclusions?

Can anyone doubt that we must either have independent school trustees or else elective superintendents subject to the recall?

The recent drive for the elimination of the trustee as anything more than a rubber-stamp to his superintendent or president, might have accomplished much if, at the same time, it had been a drive for information in the heads of trustees which would enable them to tell whether their superintendent or president is doing his work efficiently enough. We have not even been trying to instruct the trustee so that he could tell whether he wants big enough and definite enough things of his superintendent or president.

If the trustee or commissioner or board member or regent is worth keeping, he is worth keeping informed. Unless he is kept informed we shall in time abolish him and deal with the superintendent face to face without any scapegoat or buffer.

No more convincing illustration exists than the woman school trustee or university regent. All over this country the nominating or electing of a woman trustee is the signal for a "dead set" by superintendent or president—to do what? To see that the new trustee is given the facts necessary to intelligent and independent judgment? No, indeed! To "land" her as a personal partisan—friend—dependent of an officer whose work she is sworn to observe and judge analytically and impersonally.

The best cure for the ills of educational trusteeship is the self survey. So important is this that future laws and charters will prescribe among the duties of a trustee both the continuous and the special self survey of his trust, point for point, specific, impersonal, "as harsh as truth and as uncompromising as justice." Only then will this functionary develop from the truster into the trustee.

Lists of points to be checked by trustees—balance sheets of program and performance to be carefully read and attested—will more and more be published by state departments of education.

Points actually checked by the school or college board will appear as reports of progress each year, as naturally as the present audit of financial accounts is appearing in our best annual reports.

Finally, next steps recommended by the school or college board will also be specifically listed in annual statements which bear the earmarks not merely of trustee approval but of approval based upon careful analysis.

No district is so small and no college so feeble that the specific comparing of that district or college with other similar districts and colleges, and each with its own opportunity, will not soon be considered among the minimum essentials of educational trusteeing.

It is a poor compliment we pay a superintendent or president when we decapitate our boards or trustees so that they go thru the motions of trusteeing when actually they are guileless and innocent of any cerebration.

Mechanical aids to self surveying by trustees already exist altho they are not yet numerous; here and there is a division of reference and research or a suggestion and complaint bureau; again a printed list of questions will be found by trustees when visiting their schools; now and then one will find typed or mimeographed suggestions for visitors and board members. There are a few handbooks on school and college management which contain such questions that trustees should make it their business to answer. These mechanical aids are still too few and need to be supplemented by ready aids for local application such as state and national bureaus of education can most helpfully disseminate.

If the national bureau would issue a little handbook on the minimum essentials of school and normal school trustees, it would exert a constructive influence such as few governmental specifications have attained.

A PATRIOTIC DUTY

School board members and superintendents as a class are not eligible for military service. They can nevertheless render a large help in the present emergency by purchasing a Liberty Loan Bond.

They can do more: They can urge the principals, teachers, janitors and other employees of the schools to invest in the second issue of the Liberty Loan Bonds.

The present opportunity of buying a Liberty Loan Bond is in reality a privilege of aiding humanity for gaining a world wide democracy—and it is the safest investment in the world.

COLLEGE, EXPERIENCE AND CHARACTER VERSUS THE SELECTION OF TEACHERS

F. E. Shapleigh, Buffalo, N. Y.

In one of our largest cities it was recently proposed that no one be permitted to try the examinations for positions in the high schools except those who had graduated from colleges or universities. At once protesting voices arose against what was termed an "undemocratic, un-American policy," an attempt "to erect a barrier to ambitious grade teachers endeavoring to earn promotion to high school teaching staffs."

This episode suggests several questions:

First: What are the qualifications which should be required of candidates for positions in secondary schools?

Second: How do these qualifications differ, if at all, from the qualifications which should be required of candidates for positions in the elementary schools?

Third: If different requirements are necessary in high school work, how may a grade teacher become prepared to enter high school work?

Fourth: Is the principle of "democracy" involved, if selection is based on fitness for service, and if such fitness debars a given class of applicants?

Fifth: After all, is it the teacher or the child to whom first consideration must be given?

Sixth: How are these problems being met in other cities?

As a partial answer to these queries, the following summary has been compiled, setting forth the requirements demanded of prospective school teachers in a group of large American cities.[1]

BALTIMORE.

Elementary schools: Candidates must pass a competitive examination in "training and knowledge," and demonstrate their "aptness for teaching" by an actual test under ordinary school conditions. Before taking competitive examinations, candidates must have completed a course in an acceptable training school, or they must have taught acceptably for four years and must have passed the academic examination, the four years' approved teaching being accepted in lieu of other professional examination and training.

High schools: Fitness for appointment is determined by careful scrutiny of college diplomas or certificates, or by examination, oral or written, disclosing equivalent qualifications in the subjects to be taught. Candidates who cannot show these qualifications cannot be considered. Proof of success in actual teaching is also considered.

BOSTON[2]

Elementary schools: Requirements for certificate to serve as assistant include evidence of two years' successful experience in teaching and governing regular graded day schools, or graduation from the Boston Normal School. An examination must be passed, in which subjects and methods count 600; amount, quality and character of experience, 400; on a basis of 1,000 points.

High schools: Requirements for certificate are: Diploma from approved college or university, or from institution of as high a grade and evidence of three years' successful experience in teaching and governing regular graded day schools. Work done for the master's degree in education under an approved plan may be accepted as equivalent to two or three years' teaching experience. An examination must also be passed covering subjects and methods and amount, quality and character of experience.

Teachers of commercial branches and of manual arts who originally qualify for appointment under a special certificate may, upon the completion of seven years of service in those ranks in a Boston day high school, be granted the full high school certificate, subject to such examination as the board of superintendents may determine.

BUFFALO.

Elementary schools: For admission to examination, candidates must have the following qualifications:

(a) Graduation from a state normal school, or

(b) Graduation from a high school or academy having a course of study of not less than three years, or from some institution of learning of equal or higher standing, approved by the commissioner of education, and, subsequently to such graduation, graduation from a school or class for the professional training of teachers, approved by the commissioner of public instruction, or, in lieu of such special training, successful experience in teaching for at least three years.

The board may first examine candidates orally for the purpose of ascertaining their general physical and moral fitness.

The examination includes subjects to be taught, history of education, class management. In all subjects an average standing of at least 70 per cent is required. The subjects for examinations are divided into two groups. In the first group, including spelling, grammar, arithmetic and geography, a standing of at least 70 per cent is required in each subject but in the second group, including rhetoric and composition, literature, history and civil government, physics, physiology, school hygiene, botany or zoology, education and drawing, a standing of at least 60 per cent in each subject is required.

High schools: For admission to examination, candidates must possess the following qualifications: (a) Graduation from an approved college, and graduation from a pedagogical course in a university or college, or in lieu of graduation from such pedagogical course, one year's experience in teaching.

(b) A state normal school diploma and three years' experience in teaching.

(c) A high school diploma, together with graduation from a teachers' training school, and also three years' experience in teaching.

(d) Eight years' experience as public school teacher.

No person who has not had two years of experience in teaching, is eligible to appointment as a teacher in any high school.

Candidates must attain a grade of at least 70 per cent in each subject in the written examination. In addition to these written tests, they are required to pass such other examinations, written or oral, as may be necessary to enable the board of education to ascertain their general fitness for the position desired.

CHICAGO.

Elementary schools: Candidates for certificates must pass an examination, which may include methods; and must present credentials showing the following:

1. (a) Graduation from an accredited high school equal to the Chicago high schools, and (b) At least four years of successful experience in graded school work, or

2. (a) Graduation from an accredited college or normal school, and (b) Two years of successful experience in graded school work.

High schools: Candidates for general certificates must pass an examination, including professional study; and must present credentials showing the following:

1. (a) Graduation from an accredited college and (b) Two years of successful experience in graded schools of good standing, or

2. (a) Graduation from an accredited college and (b) Completion of the required work in the Chicago teachers' college, and (c) One year of successful experience in graded schools.

CINCINNATI.

Elementary schools: Candidates must be high school graduates and must have had not less than one year of professional training. College graduates are eligible to ranking on the first or preferred list. Graduates of a two years' normal course or teachers having one year of professional training and not less than two years' successful experience in teaching are eligible to ranking on the second list. Candidates must also hold certificates from the Cincinnati board of examiners or the state of Ohio, and must have done practice teaching for inspection by the Cincinnati school authorities.

High schools: All teachers of academic subjects must be college graduates. Candidates must have specialized in college in subjects which they desire to teach.

All candidates must have had not less than one year of professional training. Candidates must also hold certificates from the Cincinnati board of examiners or the state of Ohio, and must have done practice teaching for inspection by the Cincinnati school authorities.

CLEVELAND.

No person who is not a citizen of the United States can hereafter receive a first appointment as teacher in the Cleveland schools unless prior authority for such appointment shall have been granted by the board of education.

Elementary schools: No person shall be appointed as a teacher who has not had successful experience as a teacher, or who has not completed an academic course equivalent to that of the Cleveland high schools, and in addition thereto a professional course equivalent to that at the normal training school, unless the demand for teachers exceeds the supply.

High schools: In filling vacancies in the high schools teachers of recognized training and demonstrated ability will be appointed, but for positions as teachers of academic subjects no person who does not possess a college degree is eligible.

DETROIT.

Elementary schools: All eligible applicants must hold one of the following qualifications:

(1) Detroit normal school diploma.

(2) Diploma from a university or college.

(3) Life diploma from a state normal school or Michigan state life certificate.

All teachers appointed, except those from the Detroit normal training school, must have had not less than one year's successful experience in teaching.

INDIANAPOLIS.

Elementary schools: No person can be appointed who has not had educational prepara-

[1] Compiled from rules and regulations of school boards. Verified to June, 1917, with the exception of Indianapolis.

[2] The Board of Superintendents is now preparing a plan for the simplification of all certificate examinations, limiting the number of examination subjects and bringing the examinations within one day for each certificate.

tion equivalent to that of graduates of the high schools in Indianapolis, and in addition, successful experience in graded schools or as an equivalent, either an approved normal school course, or a diploma from an approved college or university. Candidates must pass an examination covering subjects, and theory and practice. Credits toward degrees, secured from approved colleges, may be accepted in lieu of examinations in the respective subjects.

High schools: Applicants for positions must be graduates of approved colleges or universities, and must pass examinations in the subject to be taught, and in related subjects.

JERSEY CITY.

Elementary schools: A primary and grammar certificate is granted to graduates of the Jersey City training school upon graduation. This certificate is granted to graduates of a college, or normal or city training school whose course covers two years, and persons who have had at least two years' experience. This examination covers subjects, methods, principles of education, school management, experience, references.

High schools: Candidates must have evidence of academic training, must have at least three years' experience in teaching or supervision, and must pass an examination including (a) Personality, and record in teaching or supervision, (b) Test of applicant's proficiency in subject to be taught. These two elements have equal weight.

KANSAS CITY.

Elementary schools: Certificates may be obtained by (a) Presentation of satisfactory transcripts of academic and professional courses taken in preparation for teaching, and passing such oral or written examination as may be prescribed. Graduates of an accredited college or an approved normal school may thus secure a certificate: (b) Examination in subjects and in methods and principles. Candidates for examination must have had a four-year high school course and two years of additional work in high schools, or their equivalent.

High schools: Certificates may be secured by (a) Submission of approved credentials. Graduate of an accredited college or university, with two years' experience may receive a certificate if he has taken required work in education and passes oral examination. Without experience, candidate may become eligible for substitute's position: (b) Examination. To be eligible, candidate must be graduate of accredited college or university, or its equivalent, with requisite hours of professional training or an examination in such subjects in addition to regular examination.

LOS ANGELES.

Elementary schools: Candidates must have not less than a four-year high school course and a two-year course in an accredited normal school. Three or more years of successful teaching may be offered in lieu of one year of high or normal school work. Candidates must have had at least one year's experience or be especially recommended by a state normal school for one year's successful work in training school.

Education, experience, personality and efficiency, comprehension and attitude regarding educational problems are considered, and data for this are secured thru application blanks, references, and oral and written examinations covering theory and practice of education, methods, relation of school to other social institutions and to life. The marking for the oral examination is on the scale of 100 per cent and is the average of the several marks given by the members of the examining body. Written examinations are graded, on a scale of 100 per cent, by two or more readers, the average of whose marks constitute the grade. All applicants must have a county or state certificate.

High schools: Candidates for high schools or intermediate schools must have one or more years of post-graduate work in a university of standing, or its equivalent in study, travel or experience. Education, experience, personality and efficiency, and comprehension and attitude regarding educational problems are considered in the selection of candidates. Oral and written examinations for high schools are supplemented by references, credentials, and recommendations, as in examinations for elementary school positions. All applicants must have a county or state certificate.

MILWAUKEE.

Elementary schools: Candidates must hold a Wisconsin state normal school diploma, a Wisconsin state license, or a certificate granted upon examination by the Milwaukee school board. Persons are rarely appointed without a personal interview.

High schools: Applicants who desire to teach only in high schools and who are graduates of colleges and universities of recognized standing, are not required to hold other credentials before applying for positions. Teachers of commercial subjects in high schools must hold a Wisconsin license.

NEWARK.

Elementary schools: Applicants for grade license must possess at least one of the following qualifications: (a) Graduation from high school or equivalent, and graduation from normal or professional school for teachers whose course is not less than two years.

(b) Graduation from a college or university whose professional courses are considered adequate, or in lieu of such training, not less than one year's experience.

(c) Permanent elementary certificate of New Jersey issued subsequent to July 1, 1911.

All candidates having less than two years' experience must pass a written examination in English (including methods) and in the science and art of teaching.

When a written examination for grade license is required, a maximum of 180 credits is allowed for scholarship, 60 credits for experience and 60 credits for personal fitness. This total is divided by three, or reduced to a 100 per cent basis. For all other licenses requiring a written examination, a maximum of 50 per cent is allowed for scholarship, 25 per cent for experience and 25 per cent for fitness. For all licenses that do not require a written examination, a maximum of 25 per cent is allowed for experience and 25 per cent for fitness, these records then being doubled, or raised to a 100 per cent basis.

High schools: Applicants for license to teach academic subjects must possess one of the following qualifications:

(a) Graduation from college or university, with not less than two years' experience in teaching the subject.

(b) A first assistant's license of Newark, with not less than two years' successful experience in teaching in the 7th or 8th grades.

In addition, all applicants for high school positions are examined in the subject or subjects to be taught, and in the principles and methods of teaching that subject or subjects.

For licenses requiring a written examination, a maximum of 50 per cent is allowed for scholarship, 25 per cent for experience and 25 per cent for fitness. For all licenses that do not require a written examination, a maximum of 25 per cent is allowed for experience and 25 per cent for fitness, these records then being doubled, or raised to a 100 per cent basis.

NEW ORLEANS.

Elementary schools: Candidates must hold a diploma of the New Orleans normal school, or must pass an examination on subjects, school management and history of education.

High schools: Candidates must be graduates of a college of standing, and must have had three years' experience in secondary schools or good record as substitute teacher in New Orleans. In lieu of experience, examination may be taken, covering subject as taught in college, pedagogy of special subject, school management and principles of secondary education. Candidates having had the last three topics in college may be excused from examination.

Applicants who are not graduates of colleges but who have five years' experience in teaching in a regularly organized school may become eligible by passing the above examination.

Hansel and Gretel.

Little Red Riding Hood.

Two Interesting School Murals.

The illustrations on this page are miniature reproductions of charming panels painted by Miss Gertrude Spaller of Chicago, for the Auditorium of the Elm Place School at Highland Park, Ill. Miss Spaller has illustrated a number of children's fairy books and readers, and her work is notable for its delightful child types. Her mural paintings are characterized by a thoro understanding of the principle that such decorations are a part of the wall and must stay flat upon it as a pattern of color rather than a large illustration. Her treatment is invariably decorative and conventional, and avoids the realistic and the formal. She is a graduate of the Chicago Art Institute, and a frequent exhibitor at important art displays.

NEW YORK CITY.

Every person applying for a license must present evidence to show that the applicant is a citizen of the United States; in the case, however, of a person applying for a license to teach a modern language, such applicant, if not a citizen, shall be required to present evidence that he or she has made a legal declaration of intention to become a citizen.

Elementary schools: Candidates for license No. 1 must have one of the following qualifications: (a) Graduation from high school, and at least two years in training school or one year in training school and one year of experience; (b) Graduation from two year normal school course, after high school graduation, together with (1) passing of examination equivalent to college or training school entrance examination or examination set by the commissioner of education, or the passing of other satisfactory examinations, or in lieu one year's experience; (c) Graduation from four years' normal school course, with two years' experience; (d) Graduation from normal or training school course of not less than two years, after graduation from high school, together with not less than three years' experience; (e) Five years' experience, together with passing of academic examination for admission to training school or college or for state life certificate, or other similar examination; (f) Graduation from college or university together with (1) completion of pedagogical course of at least one year, or (2) three years of successful experience; (g) Graduation from an approved normal college located within New York City.

High schools: To be eligible for license as assistant teacher, applicant must have one of following qualifications:

(a) Graduation from college or university (or in case of modern foreign language, equivalent of a college education), together with one of following: (1) Not less than 160 days' experience in secondary schools or colleges; (2) Not less than 300 hours of college post-graduate work, at least 60 devoted to methods of teaching subject in which license is sought, unless already taken in last year of under-graduate course, in which case only 240 hours are required; (3) Not less than 80 days' experience in secondary schools or colleges, together with not less than 150 hours of post-graduate work in college, of which at least 60 hours must have been devoted to methods of special subject unless already taken in senior year, in which case only 90 hours are required; (4) Two years' experience in teaching in grades of the last four years of elementary schools of New York City, and completion of college post-graduate work of not less than 150 hours, 60 of which must have been devoted to subject in which license is sought.

(b) Graduation from normal school or city training school; five years' experience, including either one year of teaching in grades of last two years of the New York City public elementary schools or two years of teaching in secondary schools other than the public high schools of the city; and the completion of satisfactory university or college courses in subject in which applicant seeks license, amounting to not less than 150 hours, at least 30 of which shall have been in the science of education.

College graduates who have specialized in subjects to be taught may obtain requisite experience thru license as "teacher in training," which allows them to substitute and to assist the principal.

OMAHA.

Elementary schools: No person is eligible unless a graduate of high school or school of equal rank, and in addition a graduate of a kindergarten school or state normal school, or a college or university. It is preferred that college work shall have been taken in the department of education.

High schools: No person is eligible unless a graduate of college or university and has had at least two years' experience in high school or school of equal rank, and it is preferred that college work shall have been taken in the department of education.

No teacher is eligible to promotion from the elementary department to a position in the high school unless a college or university graduate, and of at least three years' experience in the elementary schools.

Superior qualifications as to moral character, cheerfulness in compliance with instructions, practical skill in teaching, and professional spirit, are especially regarded in the employment and continuance of teachers.

PHILADELPHIA.

Elementary schools: No person can take the examination for grade certificate without previously completing two years in college or training school for teachers, or in lieu, two years' experience in addition to high school or equivalent education. Applicants are examined in pedagogical subjects and in special subjects. "For some years past we have not had a sufficient number of vacancies to appoint all the graduates of our normal school, hence it has been unnecessary to hold examinations for applicants for such positions."

High schools: Candidates for examinations must present proof of college graduation, or equivalent education. In examinations for positions in boys' high schools, a technical course in college will not be accepted, except in the field to which the technical course is related.

Examinations are partly written and partly oral. The written examination covers (a) Methods of teaching and management, (b) Subjects to be taught, and related subjects.

Those who receive an average of seventy or over are placed upon the eligible list for a period of two years, at the end of which time the period of eligibility may be extended for one year upon written application of the candidate.

ROCHESTER.

Elementary schools: No person can be regularly appointed to a grade position who is not a graduate of a normal training school or who has not had equivalent teacher training work.

High schools: No person can be regularly appointed to any senior high school position who has not had at least two years' experience and who does not possess one of the following qualifications:

(a) Graduate of college or high school.

(b) Graduate of four years' normal school course.

(c) Holder of life certificate of New York State.

SALT LAKE CITY.

Elementary schools: To be eligible as regular teacher, candidates must have had at least a normal school education or its equivalent, or must pass the required examination, and must have had at least two years' experience. Superior qualifications as to scholastic attainments, pedagogical knowledge of matter and method, tact in managing a school, moral character, devotion, industry, comity and practical skill are especially regarded in the employment, continuance and remuneration of teachers.

High schools: To be eligible as regular teachers, candidates must have had one year's experience in high school, and must be graduates of some university or college. College graduates unable to meet the experience requirement may be appointed as assistants. Superior qualifications as to scholastic attainments, pedagogical knowledge of subject matter and method, tact in managing a school, moral character, devotion, industry, comity and practical skill shall be especially regarded in the employment, continuance and remuneration of teachers.

A college graduate of marked efficiency in the elementary schools may be promoted to the rank of high school teacher, in accordance with the conditions governing such appointments.

SEATTLE.

Elementary schools: For grade positions applicants must have a normal school education, or its equivalent in training, and two years' experience in graded schools. Holders of college or normal school diplomas or accredited state certificates are required to take examination only in the state manual, provided they have had twelve hours' work in education. Those who do not hold accredited papers are required to pass an examination.

High schools: For high school positions applicants must be college graduates, and must have had at least one year's experience in high school. Provided candidates have had twelve hours' work in education, no examination is required except in the state manual.

ST. LOUIS.

Elementary schools: All positions in the elementary schools for white children must be filled by appointment of graduates of the Harris teachers' college, the St. Louis city training school for grade and kindergarten teachers in the St. Louis public schools. Teachers in the colored elementary schools must be chosen from the city normal training course for colored youths.

High schools: The superintendent is authorized to employ as teachers in high schools, without examination, graduates of colleges and universities of national standing. The number and character of the applications received for such positions make it possible to employ graduates of such schools who have had at least two years' experience in the teaching of their special subjects.

ST. PAUL.

Elementary schools: The following classes of persons are eligible for appointment: (a) Graduates of two years' course in a Minnesota state normal school, who have had one year's experience in graded school; (b) Graduates of some

(Continued on Page 80)

THE JOY THAT SHOULD BE THE TEACHER'S.

If an Agassiz finds pleasure in digging among fossils in order that he may interpret the great story of prehistoric life; if a Thoreau by Walden pond is delighted with his studies of bugs and beetles; if a John Burroughs on his little patch of ground in the valley of the Mohawk, glories in his life among the birds and bees; if a Luther Burbank is enraptured with his work of transforming a worthless desert cactus into an edible fruit, or in producing a sweeter rose or a fairer lily; if these and other workers whose names are legion, revel in the love of their work—then by what term shall we designate the joy that should be the teacher's, who works not with mere fossils, nor with bugs or beetles, nor with birds, bees or flowers, but with the child who is at once the most complex, the most plastic, the most beautiful, the most wonderful of all God's creations. Yes, it's a great thing to teach school, it's a wond rful thing to be a teacher.

FRANK W. SIMMONDS,
Superintendent Lewiston, Ida., Schools.

AN INVITATION TO PARENTS

Isabel Underwood Blake, Oak Park, Ill.

The school board was giving a party to parents. The party was in the high school building—the same old building from which some of these very parents had been graduated. They had come back to it this evening for almost the first time since then; others, who had come to the town from outside, were here for the first time. A few parents, of course, had visited the high school previously, mostly those whose young sons and daughters had proved intractable.

As they moved about in the unfamiliarly familiar room, "This was the corner where I had my desk," one woman exclaimed, and,

"I always had to take a seat way down in front," said her husband, with a reminiscent chuckle.

"The old place doesn't seem much changed," remarked another man, "Washington and Lincoln and the flag on the wall."

"But we hadn't silk pennants and silver cups for athletics," a neighbor reminded him.

"Nor a victrola," said another, delighted with her discovery.

The board president called them to order. The occasion was a party, he reminded them, and the first event of the evening was to be a game. If all parents would find seats here in the assembly room, they would proceed to play school. Laughing, chatting, and amused, or silent and a little over-awed—for next to the minister's wife sat one who did the minister's laundry work, and many another obscure townsman was in his careful place among the socially elect—the guests found places at the school desks. Half a dozen of them were appointed "monitors" to distribute pencils and paper.

The pencils and paper, said the board president, were for a test—an "exam" of ten questions. There would be a prize, he announced, for the best set of answers. And then smiling he yielded his place to the new superintendent, who stood beside the table and tapped the bell. The guests stirred at their desks to look at him. Many of them had never met the new superintendent. And when he had acknowledged the introduction to the parents of those children for whose education he was being held responsible, the superintendent gave out the ten questions.

"First," said he, "will you write the name of your child in high school. If you have several here, choose one. Question number one," (there was an expectant pause), "what subjects is your child studying?" A relieved smile spread over the faces of the examined parents, but shortly faded from most of them. Pencils beginning briskly were stayed in air, and someone was heard to protest against the fathers' cribbing from the mothers.

"Question number two, (a)," said the superintendent, "what is his best study, and what is his poorest? (b) How much time does he put on the preparation of his studies, in school and out?

"Number three," he went on, unheeding the calls for "time," "Why is he poorest in that study, and what can be done to raise his standing?"

Question four, with its five sections, wrought havoc on the examination papers. "What sciences does this high school offer? The history of what nations? Which are the branches of mathematics taught here? How many languages may be studied? What field does the four-year course in English aim to cover?"

"Question five, (a)," said the examiner briskly, "what book, aside from those required in the school, has your child most lately read? (b) What book have you most lately recommended to him, and brought to his attention?

"Question six: how recently have you examined your child's science note-book, Latin exercises, mathematics papers, or English compositions?

"Seven: how many teachers are there on the high school force? How many of them do you know?

"Eight: what is one new method of teaching any one high school subject since you studied?

"Nine, (a): what new equipment has the high school bought since your child has been a pupil here? (b) What next acquisition, by purchase or gift, does it most desire? (c) What should you most like to see it acquire?

"Ten, (a): what is any one characteristic policy of the present school board? (b) Name any one educational innovation of the present superintendent?"

The answers, which had come quickly enough at first, seemed to lag, judging by the faces of the writers, who were losing their look of amused confidence, for expressions of thoughtfulness, puzzlement, something like embarrassment, and sometimes, utter blankness. At the end the papers were collected almost in silence, by the "monitors," and

"What's the idea?" someone demanded.

A school board member rose to her feet.

"The idea started," she explained pleasantly, "when three others and I, elected to the board this fall, began to realize how little we knew about what our high school is doing, and what our children in it are doing. Two of us were parents. And we thought that if all the parents realized how much or how little they knew, they might be glad to set about knowing more. The idea is not to throw a greater burden on the school, and not to take any responsibility from it, but for the parents to be informed, and to work with the school, and the superintendent, and the school board."

The little woman who did the minister's laundry work, and others, got up awkwardly. She was frightened, and the sound of her own voice frightened her still more, but she persisted.

"It is a good thing," she said, "for us to know about the learning, and to work with the school. If the school thinks I can, I'll be glad to do it. I never thought I could understand what they are doing, or needed to. But I'll be glad to. Only—" here her timid voice sounded braver, "does the school know about us?—about us parents, I mean? If my boy doesn't have his lessons, does the school know how much work he does at home, and that he has a job in the afternoons? If someone's girl isn't respectful to the teachers, does the school know whether her family's polite in her home? If they're not, maybe the school could be extra polite to her, so she'd learn to be. Some homes have pianos, and lots of books, and then some homes are cold in the winter time.

"I'll be glad to learn about the schools and how my boy is learning, only, if we're going to work together, I think the schools had better learn about us, too."

There was a surprising clapping of hands when she had finished, and then in the silence, one could almost hear the resolves that were coming into being: to give a reciprocal entertainment to the teachers; to find out the aims of the school board; to know this new superintendent; to take home those ten questions, and get the correct answers; on the part of the superintendent, to meet one by one these quiet usual, well-meaning, indifferent, surprised and stirred citizen-parents; on the part of the school board, to gather in a whole new body of statistics.

The board president had been scanning the "exam" papers.

"Prize! Prize! Prize!" demanded an unabashed guest. But the president shook his head.

"There can be no prize awarded," he announced, "because none of the papers made the required 70 per cent to pass."

Should the Teacher Be Penalized for Illness?

A Superintendent's Wife

What will result in the best good of the school? This ought to be the final test for every phase of school administration — building, grounds, textbooks, teachers. Given a properly selected teacher, then the best good of that teacher and the best good of the school are vitally related. A suitable boarding place, cordial relations between teacher and parents, contentment, and happiness in the teacher re-act favorably and very directly on the school. The better her health, the more strength and personality she will have at her command to hold her forty pupils to their best by giving them the inspiration and leadership which is by far the most important part of her work. The half dead person, dragging along, vitalizes no one.

The teacher's health should be safeguarded as faithfully as that of the children. When she is sick it is important that she receive proper attention and that she be fully recovered before she returns to school; but when boards of education deduct salary for every day's absence, teachers often feel that they must go back just as soon as possible, they cannot afford to wait for recovery and strength. This results in a loss to the school that is best illustrated by a specific example.

A teacher who was ill for a few days this winter went back to school when she could scarcely stand, because she felt she simply could not afford to pay both a doctor and a substitute. She was threatened with a relapse but dragged thru the work as best she could and it required fully four weeks for her to regain what a few more days at home would have brought her. She had her doctor's fees to pay, her druggist's bill, and the little extras that illness always brings. This was her first absence on sick leave in four years, and, altho she had contracted tonsilitis in a cold schoolroom, the board deducted from her meager salary the fee for her substitute. Unfortunately, her case is only one among hundreds. The well paid superintendent in this same school loses time by illness every winter; when he was at home three straight weeks with a sprained ankle his work was carried along by others. Perhaps he would have "seen a light" if three-fourths of that month's salary had been withheld.

No one would think of deducting salary for a few days', or even a month's illness in the case of our United States Commissioner of Education. We would not so insult him, nor a state, county, or city superintendent; but when the misfortune befalls those who can least bear

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Privileges and Liabilities of Pupils

Harry R. Trusler, Dean, College of Law, University of Florida

Transportation Privileges of Pupils.

The transportation of pupils to and from school at public expense is legal (Note, Ann. Cas. 1912 C. 762). To a certain extent, however, they may be given transportation advantages at the expense of private corporations Thus, a statute may require a street railway company to carry pupils between their homes and the public schools at rates not exceeding half the regular fare between the same points (11 L. R. A. N. S. 973). On this decision the Harvard Law Review comments as follows: "A statute prescribing the maximum charge of a public service company will be held constitutional, in the absence of evidence clearly showing that such regulation will prevent the company from earning a reasonable profit in the item of business affected (199 Ill. 484; 199 Ill. 579). A more novel point in the present decision is the validity of the discrimination between pupils of public schools and other persons. Legislation conferring special privileges on a class of persons is constitutional, if public welfare creates a reasonable need for a different treatment of the individuals selected, and all persons within the class are affected alike under like circumstances (179 U. S. 89; 179 U. S. 283). Laws prescribing that textbooks be supplied free to pupils, or even that clothing be furnished to poor students, have also been frequently enacted and their constitutionality seems never to have been questioned (57 N. E. 712). The duty of a state to provide a system of public education therefore seems a sufficient justification for the discrimination made by the Massachusetts legislature" (18 Harv. L. Rev. 618).

Considering whether or not the above statute was invalid as a taking of property without due process of law, the court said: "Was it not possible for legislators to decide that pupils, in most cases, go to and from the public schools at hours when the cars are not in use by persons going to and from their work, or by many persons; that the pupils generally are of such age and size as not individually to occupy nearly so much space as other passengers; that the difference between full fare and half fare is of such importance to the parents of many of these pupils that the number who would ride at the half rate would be nearly, if not quite, twice as many as at the regular rate; and that for these and other reasons railway companies would suffer no loss from carrying the children at half the regular fare? Unless we can say as matter of law that such a view would be untenable, we cannot hold that the statute is unconstitutional. Nothing less than a certainty that the provision would cause loss to the railway companies, or to some of them, would enable us to hold that the Legislature was powerless to make the requirement" (73 N. E. 530; affirmed, 207 U. S. 79).

In a later case involving the same question the same court has declared: "The legislative rate must be so small as to occasion a loss to the carrier if it performs the service required for the price permitted before it can be held unconstitutional, provided the total net earnings are such as to yield a reasonable return upon the value of the corporation as a whole, having regard to the fact that this is a burden imposed by a police regulation in the interest of education. It is not enough to show that no profit may come from the particular service; it must appear that in conjunction with all the service of the corporation the rate is unreasonable and is equivalent to spoilation. The presumption is that the rate fixed by the legislature is reasonable. The onus rests upon the carrier to show the contrary. The case must be a very clear one before the courts will interfere with a legislative determination of rates" (98 N. E. 1075).

Obviously it is competent for the legislature to provide that "the managers of any road in which the state or county has an interest shall charge no toll against scholars going to and from school." But such a provision does not require a turnpike road company to allow them the use of the road free of toll when on the way to school they carry milk and vegetables to town. "If it were otherwise," said the court, "every farmer who desired to send his children to school could load his wagon with the products of his farm, place his children on it and a driver in charge, and thus haul all his products on the road free of charge. The statute means to exempt from the payment of tolls scholars going to and from school, not scholars who are engaged in carrying on a business over the road" (39 S. W. 410).

A railroad has the right to establish a reduced rate for students under a fixed age (78 N. E. 418). Reduced street car fare for pupils, moreover, may be required by a city ordinance (53 S. E. 962), and the same may be made a condition upon which a franchise is granted to a railway company by a city (16 L. R. A. N. S. 651). Since the acceptance of such a franchise is a matter of contract on the part of the company, it cannot be heard to complain that its performance entails a loss upon it. Upon the acceptance of such a franchise a carrier may be mandamused by the city granting it to perform its duty (Merrill, Mandamus, 27) and a pupil who is refused a ticket at the legal price may sue it for the damages that he has sustained thereby (33 N. W. 34). The company also may be fined for the violation of an ordinance requiring reduced fare tickets to be sold pupils (53 S. E. 962).

It is interesting to note that one who, by fraudulent representations as to his age and occupation, procures a student's reduced fare ticket, does not while traveling upon it occupy the relation of passenger toward the carrier, but is a trespasser. He, therefore, cannot recover for injuries received while upon the train, unless they are received under circumstances which would entitle a trespasser to recover; and the utmost duty of a carrier to a trespasser is to abstain from doing him any wilful or reckless injury (6 L. R. A. N. S. 11460).

It remains to consider who are within the statutes or ordinances requiring carriers to give reduced rates to "pupils" or "school children." An agreement to provide transportation at a reduced rate for pupils in attendance upon public schools, state normal schools, or any school in a designated place, does not apply to pupils attending a business institute or a college, altho the word "school," is undoubtedly one of broad signification, and sometimes it may appear, by the connection in which it is used, to include higher institutions of learning as colleges or universities or institutions for the teaching of trades, professions, or business (85 N. E. 507). However, in construing the meaning of an ordinance requiring reduced rates for pupils, the negotiations between the company and the city council may be examined as throwing light on the subject. The construction that the parties themselves have placed upon the language also will be considered; and if the company for a time has given reduced rates to students of a business college it tends to show that they are embraced in the ordinance. Pupils is a word of much broader significance than children; where the latter is used only young people in attendance upon institutions of a subordinate character are included. These considerations induced the Supreme Court of Virginia to hold that pupils of Smithdeal Business College and Richmond College alike were entitled to reduced fare under an ordinance giving it "to pupils presenting a certificate of enrollment in some school" (53 S. E. 962; 52 S. E. 963). Furthermore, a stipulation in a franchise to a street railway company that tickets for the use of school children shall be furnished at a reduced rate has been held to apply not only to children attending public schools, but also to children attending private schools maintained by private benevolences for the benefit of the public (127 Pac. 1087).

Residence of Students for Voting Purposes.

Whether a student attending school is entitled to vote in the place where the school is located is a question that may arise in various ways. It may be presented by the contest of an election because of alleged illegal votes on the part of students (48 Am. St. Rep. 706). It is raised by the application of a student to compel his registration as a voter (52 L. R. A. 831); and in such a case the application should show his former residence, or facts from which it may be determined whether or not he has lost it and acquired a new one (83 N. Y. S. 847). Moreover, it is always possible to test the right of a student to vote by a criminal prosecution for illegal voting; but a showing of a criminal intent on his part is essential to a conviction (135 N. W. 921).

A qualification universally required by state constitutions as prerequisite to the right to vote is residence in the state and voting district for a given period prior to the election. A great number of definitions of residence, varying slightly, have been given. One's residence, it has been stated, is where he is habitually present, and to which, when he departs, he intends to return. It often has been held equivalent to the word "home," in the sense of a home to which one, whenever absent, intends to return. Ordinarily also it is used in election laws as synonymous with domicile (9 R. C. L. p. 1030). A student who goes to a college town with the intention of remaining there simply as a student, and only until his education is completed, and who does not change his intention, does not acquire a residence there, but retains the domicile of his origin (36 Am. Rep. 216; 48 Am. St. Rep. 706; 10 Am. Rep. 698). The fact that one is a student in a university does not entitle him to vote where the university is situated, nor does it of itself prevent his voting there. He may vote at the seat of the university if he has his residence there and is otherwise qualified (30 Ohio C. C. 765; 48 Am. St. Rep. 706; 31 S. W. 97; 135 N. W. 921).

A student's presence at an institution of learning is not presumptive evidence of his intention to make that his legal residence (2 Pa. Co. C't. Rep. 323). Indeed, he is presumed not to have the right to vote, and if he attempts to do so, the burden is on him to prove his residence (83 N. E. 549). An active intent upon the part of the student to change his residence to the place where he is pursuing his studies must be shown (30 Ohio C. C. 765), and there

should be other satisfactory evidence besides the student's own declarations (11 Phil. 641; Ill. Leg. Gaz. 350). It has been said, however, that a voucher as to his residence should be required (1 Ches. Co. Rep.—Pa.—257). That a student is supported and maintained by his parents and spends his vacation with them are strong, but not necessarily conclusive, circumstances to prove that he has not changed his residence (31 S. W. 97); and a showing that he has borrowed money from his parents to help him thru college weakens his claim to a residence in a college town, unless it was a purely business proposition between himself and his parents (83 N. E. 549). The fact that a student has voted raises a presumption of the legality of his ballot which overcomes the presumption that the domicile that he has written on his matriculation card continues until affirmative evidence of a change is given (30 Ohio Cir. Ct. R. 765).

A student supporting himself entirely by his own efforts, not subject to parental control, and regarding the place where the college is situated as his home, is entitled to vote there, even tho he may at some future time intend to remove (83 N. E. 549; 13 N. E. 700), or has no fixed purpose as to his movements after completing his studies (48 Am. St. Rep. 706). The undergraduates of a college who are free from parental control, and who regard the place where the college is situated as their home, having no other to which to return in case of sickness or domestic affliction are entitled to vote therein. It is, *pro hac vice*, their home—their permanent abode in the sense of the statute (78 Ill. 170; 20 Atl. 434; 10 Mass. 488; 40 L. R. A. N. S. 168).

It is not accurate to say that residence shall not be deemed to have been lost or gained while in attendance at any institution of learning (49 Am. Rep. 606; 52 L. R. A. 831; 40 L. R. A. N. S. 168). As Judge Ostrander of the Supreme Court of Michigan well observes: "I apprehend that if a young man of full age was sent to college by his father, never having acquired a residence apart from that of his father, and if his father and family should in good faith, for the purpose of establishing their family domicile there, take up a residence in the college town while he was a student there, he would thereby gain a residence as an elector. So if the family of such a young man should remove from one place to another in the state, I apprehend that he might register and vote as an elector in the community in which his father lives. In such a case, he would both lose and gain a residence 'while a student at an institution of learning'" (135 N. W. 921).

The removal of the parents of a student to the town where he is attending school is not necessary to constitute it his domicile, however, for the student himself may go there for the purpose of making it his permanent abode, independently of his sojourn as a student, and thereby acquire a new residence (73 Md. 66; 5 Met.—Mass.—587; 49 Am. Rep. 606; 113 Ind. 148; 10 Mass. 488; 20 Abb.—N. C.—187; 2 L. R. A. 203). A minor, however, cannot change his domicile; and therefore a student domiciled outside of the state must remain in the state the period required by the election laws in addition to having the necessary intent to change his domicile in order to acquire a residence for voting purposes (30 Ohio Cir. Ct. R. 765). Even a constitutional provision to the effect that no person shall gain a residence by reason of his presence as a student at any institution, does not disqualify a student from acquiring a residence in the parish where such institution is located (60 So. 78; 49 Am. Rep. 606). But he cannot gain such a residence merely by attending an institution of learning; as, for example, if he comes to the seminary in order to study for the priesthood, altho he has renounced all other residence or home, and on admission to the priesthood will continue in the seminary until assigned elsewhere by his ecclesiastical superiors (52 L. R. A. 831). Acts independent of his presence as a student, however, may show his intent to acquire a new residence (32 N. Y. Supp. 689).

Liability of Pupils for Injuries to Others.

It is purposed here to consider the principal ways in which a pupil, altho a minor, may incur liability for injuries to others. At the outset it should be noted that a parent, as such, is not liable for his child's torts (56 Am. Rep. 101; 97 Am. Dec. 381; 11 L. R. A. 429). Consequently, nothing is gained financially by securing a judgment against a child for his torts, unless the child himself owns property out of which the judgment can be satisfied or it is expected that he will acquire such property before the judgment is barred by the statute of limitations. As a general rule an infant is responsible for his torts as any other person would be (1 Cooley on Torts—3rd Ed.—177). But if he is very young his harmful acts may fall within the category of accident, rather than of tort (1 Hill and Den.—N. Y.—193). So, too, where malice or intention to injure is a necessary element of a tort, an infant too young to entertain the same cannot be held liable (54 Miss. 121). And since an infant legally cannot appoint an agent, he is not liable for the want of fidelity, care, or skill of one (94 Am. St. Rep. 268). Infants are liable in tort for assault, battery, trespass, slander, libel, dissensions, fraud, and conversion of property (84 Am. Dec. 741). The command of his parents to commit a tort will not absolve him from liability (23 N. H. 507; 74 Am. Dec. 457; 33 Am. Dec. 180), altho it will render the parent also liable (86 Ind. 476; 27 Atl. 37).

When sued for an injury inflicted upon another pupil, a child may escape liability by showing that the injured party had licensed the act causing the injury or that the harm complained of was accidental. Whenever in the eyes of the law a person consents to an act that harms him, he cannot recover for it, since it is a maxim of the law that "no harm is done to the consenting party." Persons taking part in lawful sport assent to the harsh treatment which they had good reason to believe would be accorded them, but to nothing more than this (26 Am. Rep. 81; 20 Am. Rep. 328). In such a case the following instruction to the jury has been sustained: "If there was no malice on the part of the defendant and no intent to do the plaintiff any bodily harm, and if the parties were lawfully playing with one another by mutual consent and the act done by the defendant was no other than the plaintiff had good reason to believe would be in such play, the defendant is not liable" (110 Mass. 153). Thus, if a schoolboy should strike a schoolmate while engaged in the usual boyish sports on the playground, the act would not be unlawful, and an action for assault and battery could not be maintained, unless it should be made to appear that the aggressor struck the blow thru malice or wantonness, and with the unlawful intention of inflicting an injury. But if the blow was struck in the schoolhouse during a session of the school, the act would be in violation of the order and decorum of the school, and necessarily unlawful, and an action for assault and battery could be maintained without any proof of an unlawful intention on the part of the aggressor. In the first instance there existed an implied license by reason of the sport in which the boys were engaged, while in the latter case no license existed (2 R. C. L. p. 528; 14 L. R. A. 226). One does not assent, however, to being made the victim of a college rush by becoming a student of the college, or a spectator of the rush (20 L. R. A. 55).

But the plaintiff's assent will not exonerate the defendant from tort liability, if the acts assented to are such as the law will not countenance. An assent to a form of initiation into a society or an expulsion therefrom, which subjects the victim to appreciable bodily harm for the mere pleasure of the participants, has been held invalid (Burdick on Torts—2nd Ed.—p. 77). Since the law will not tolerate an agreement to break the peace, one may recover damages for injuries received in fighting, altho he had agreed to combat his adversary (2 R. C. L. p. 562). Minors also are chargeable in trespass for having procured another to commit an assault and battery (16 Mass. 389); and an infant stakeholder of an illegal wager is liable in trover for a refusal to deliver back the stakes on demand (15 Me. 233).

If an injury could not have been avoided by the use of the care required by law, it is accidental (6 Cush.—Mass.—292; 7 Vt. 62). The care required of a child is according to its maturity and capacity and this is to be determined by the circumstances of the case (43 S. E. 622; 106 N. W. 1077; 130 N. W. 890). Unless a child has failed to take this care, he is not liable for unintentional injuries inflicted upon a playmate in lawful play. In a recent Wisconsin case it appears that the defendant, a boy about ten years old, was playing tag during recess. Being chased by another boy he ran around the schoolhouse and bumped into the plaintiff, a boy of about the same age, who was playing marbles, and by some mischance the plaintiff's eyesight was destroyed. In sustaining a judgment of non-suit the court said:

"The very purpose of the school yard is to allow opportunity for children to play therein, and the more vigorous the exercise which they take during the brief recesses given them the better is the purpose of the school yard subserved. The venerable and exhilarating game of tag in its various forms must have been one of the primal games of the race, and it still occupies an honored place among the sports of childhood. Usually harmless and free from danger to participants and bystanders, it seems not a sport to be discouraged or deprecated, but rather to be encouraged on account of its wholesome activity and stirring of the blood. Certainly we should not wish to do anything which would seem to make it necessary for children to stand about the school yard with folded hands at recess for fear they might negligently brush against one of their fellows and become liable for heavy damages.

"Infants may be guilty of actionable negligence, and even tho the defendant was engaged

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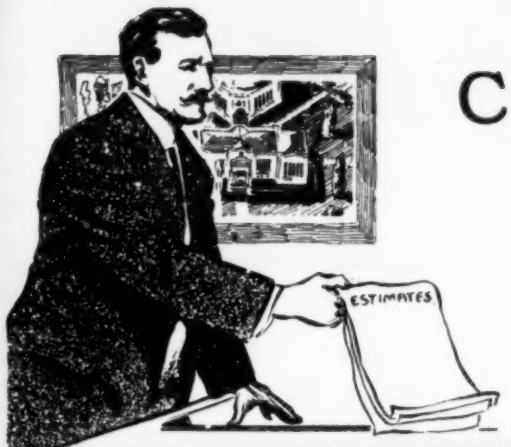
Preventable fire is more than a private misfortune. It is a public dereliction. At a time like this of emergency and of manifest necessity for the conservation of national resources, it is more than ever a matter of deep and pressing consequence that every means should be taken to prevent this evil.— Woodrow Wilson.



Cost of Heating and Ventilating School Buildings

Harold L. Alt, M. E., Brooklyn, N. Y.

Every school board is interested in the yearly coal bill and, judging by present indications, this interest is liable to become more or less acute as the price continues to rise. It would not indeed be entirely unexpected if coal should go up to double its present price inside of a very short period—a period which may be counted in months instead of years. However, the unpleasant prospect which threatens in the immediate future only renders the matter contained in this article that much more opportune, for the following discussion deals entirely with the great and *burning* question, "What should it cost to heat and ventilate a school of given size?"

If John Doe thinks he is shoveling too much coal in trying to keep his home warm, what does he do? Well, he generally finds another house about the same size as his own, and asks the other fellow how much coal *he* burns a year. If Richard Roe (which we may assume as being the name of his worthy neighbor) says *he* is only burning ten tons when our friend John is getting thru with eight, then John is thoroly satisfied. But if neighbor Richard says he is burning only *six* tons John begins to look around to find the trouble.

All of which would be very interesting if people didn't lie so much about their coal pile, with such evident and malicious enjoyment. Every season brings its crop of weird tales as to how much coal some waste and how little others burn, most of which fiction is traceable to a desire to tell a *good* story—even, sometimes, when it necessitates a stretch of veracity to the elastic limit.

In regard to schools, the cost of coal is a plain matter of figures, and it may be assumed that the tabulations shown in the table accompanying this article are about as nearly correct as it is possible to get such data.

In regard to heating any building some considerable allowance must be made for the operator. One man can easily get ten per cent more heating effect out of the same coal than another, but if this same man asked for an increase in salary based on this saving the board would undoubtedly consider it exorbitant—such is life.

One instance the writer knows bears on this subject in particular. A certain school board "somewhere in New Jersey" built two schools; these were *not* similar, but were *identical*, being, in fact, built from the same plans with a little of the trim on the front changed for the sake of appearance. The buildings were operated several years and one always took more coal than the other, this running in the neighborhood of ten per cent excess.

Just to make an experiment one year the janitors were exchanged and the same man who burned ten per cent more in one building still used about five per cent excess when put in the other school. As these comparisons were made between two buildings year for year, it follows that the weather must have been the same; the coal was all delivered by the same company under a single contract, so that this undoubtedly was the same; and the buildings in size and construction were exactly the same. Only the janitors were different.

It is, of course, possible to obtain cost figures of heating various school buildings from an almost unlimited number of localities, but to select representative costs and costs which ought to be a help to determine other buildings is not quite so easy. For instance, some boards do not tabulate their coal costs separately for the various buildings which they operate, but publish an amalgamated figure which, perhaps, should be made more or less when applied to another building of a certain type and equipment. In other words the average obtained from a combination of steam heated, blower ventilated buildings and gravity furnace ventilated schools will hardly apply with any accuracy to a building with steam apparatus and a positive blower system only.

Another difficulty is securing costs based on the same unit basis. Even when all the buildings are not lumped together and costs of individual structures are obtainable a satisfactory unit is hard to get. Suppose we know the coal bill for a given building; how is a comparison to be made against another building, say, only 50 per cent as large? It will cost more to heat the same number of pupils located in four small buildings than it would if they were all in one large one.

Ventilation in the modern school accounts for a large amount of coal during the year. Thirty cubic feet per minute means something in fuel. Suppose it is assumed that ventilation is carried on during the heating season of two hundred days for about four full days out of every seven (allowing for Saturdays, Sundays, vacations and holidays); this means 4/7 times 200 or 114 ventilation days in the school year. If the ventilating fans are run for a total length of seven hours on these days the total ventilating hours will be 114 x 7 = 798 hours per year. If each pupil is furnished 30 cubic feet per minute during the time of ventilation for the year, the total air per pupil amounts to 798 x 60 x 30 = 1,436,400 cubic feet. With an average outside temperature during the winter of 35° F. this means in B. T. U.,

$$\frac{1{,}436{,}400 \times 35}{55} = 914{,}074 \text{ B. T. U.}$$

With 8,000 B. T. U. per lb. of coal available this requires 914,074/8,000 = 114 lbs. of coal which at $5 per ton costs 114/2000 x $5 or 28c per pupil. This is over and above the cost of keeping the building at 70° F. during the winter, and the addition of an auditorium or gymnasium would probably raise this figure to 30 cents or 35 cents according to the amount of use.

The difference in the cost of fuel in various localities affects the cost of heating most radically and should not be lost sight of in the consideration of the costs presented herewith. So far as possible explanatory data has been given with the various buildings to indicate in a general way the conditions under which each building is operated.

One of the most surprising facts of the costs presented is that the power ventilated buildings show up as economical in operation. Almost every one has an idea that ventilation costs a lot of money—which in fact it does—yet, the fan ventilated schools (in which every pupil receives his or her 30 cubic feet per minute by actual test) apparently cost no more to operate than those depending on gravity or natural ventilation. One reason for this is doubtless more efficient apparatus in the fan operated schools. The gravity ventilated buildings are as a class more cheaply built and are equipped with less efficient apparatus which is more costly to operate.

In regard to this question the New York board of education operating over 700 school buildings writes as follows:

"A study of some five or six A Type buildings (fan ventilated) as compared with the same number and approximately the same size buildings of the C Class (natural ventilated), made some years ago by us, showed that the A Class buildings used slightly less coal per cubic foot than the C buildings, but no other study of this matter has been undertaken by us, owing to the structural differences of the buildings, even in the same class, and especially as between classes."

This seems to indicate that the most economical coal bills are obtained for the most elaborately ventilated buildings, to say nothing of the more desirable results obtained with the fan ventilated installations.

The greatest difficulty encountered in this preparation of these figures of costs consisted in trying to reduce the various building costs to a comparable unit basis. This was not always possible owing to variations between the different cities in the method of computing. For instance, the New York Schools are greatly overcrowded; many of them carry 50 to 100 per cent more pupils than they should and operate two sessions per day. Manifestly a cost per pupil under such conditions might only run about one-half what it would with the schools serving their proper number. Therefore, a cost of the New York schools on a classroom basis is entirely rational and consistent, but a cost on the pupil basis would not be so. The cost per cubic foot would also be rational but the figures for such a large number of buildings would involve such a mass of calculations that the costs are kept only per classroom and per pupil.

Buildings 1 to 6 and 7 to 12 in the table are the result of a very careful survey of the question of heating and ventilating in this particular district, but for some unexplained reason the survey covered the cost per one thousand cubic feet and per pupil on the fan ventilated buildings but covered only the cost per one thousand cubic feet on the gravity buildings. Yet the figures have apparently been obtained with such

care that they seem to be of considerable value on account of their accuracy. The other values were then deduced from the ones obtained in the following manner:

Calculations made on a large number of buildings show the average number of cubic feet per pupil to be about 1,450. Therefore, where a unit cost per pupil is known a cost per 1,000 cubic feet can be obtained by multiplying the cost per pupil by 1000/1400 or 5/7. Such developed figures are indicated in the table by a star.

Similarly where costs per pupil or per 1,000 cubic feet are obtainable a figure on the cost per classroom may be obtained by multiplying the cost per pupil by 40, or by multiplying the cost per 1,000 cubic feet by 1450 x 40/1000. Such developed figures are also indicated by a star.

It must be appreciated that these are only average figures and will not apply for each individual building. This may be seen by comparing the average values with the ones where actual figures have been obtained.

The explanatory notes accompanying the table itemize briefly the general characteristics of the heating and ventilating systems employed.

The general divisions or groups of buildings it would seem should separate themselves into fan ventilated buildings, gravity ventilated

(Concluded on Page 82)

TABLE OF COSTS OF HEATING AND VENTILATING SCHOOL BUILDINGS.

BLDG.	NUMBER OF PUPILS IN BUILDING	COST PER PUPIL PER SEASON TO HEAT	NUMBER 1000 CU. FT. IN BUILDING	COST PER 1000 CU. FT. PER SEASON TO HEAT	NO. OF CLASS ROOMS IN BLDG.	COST PER CL. RM. PER SEASON TO HEAT	EXPLANATIONS
1	–	.72	–	1.93	–	28.80 *	See Note N° 1-2-3
2	–	1.43	–	4.59	–	57.20 *	" " " 1-2-4
3	–	1.78	–	2.31	–	71.20 *	" " " 1-2-4
4	–	2.20	–	2.54	–	88.00 *	" " " 1-5-4
5	–	2.44	–	4.81	–	97.60 *	" " " 1-6-4
6	–	2.50	–	2.34	–	100.00 *	" " " 1-6-4
AV. 1-6	–	1.85	–	3.09	–	74.00 *	" " " 7
7	–	1.58 *	–	1.09	–	63.20 *	" " " 1-8-4
8	–	2.89 *	–	1.99	–	115.60 *	" " " 1-8-4
9	–	5.78 *	–	3.98	–	231.20 *	" " " 1-9-4
10	–	5.79 *	–	3.99	–	231.60 *	" " " 1-8-4
11	–	5.84 *	–	4.02	–	233.60 *	" " " 1-8-4
12	–	6.55 *	–	4.51	–	262.00 *	" " " 1-9-4
AV. 7-12	–	4.73 *	–	3.26	–	189.20 *	" " " 27
13	1200	2.06	2000	1.24	30 *	82.36 *	" " " 10-6-11-13
14	367	1.97	286	2.51	9 *	79.89 *	" " " 10-11-12
15	385	1.59	251	2.44	9 *	68.06 *	" " " 10-11-12
16	458	1.94	538	1.67	11 *	80.89 *	" " " 10-11-12
17	420	2.35	650	1.46	11 *	85.27 *	" " " 10-11-12
18	281	2.11	195	3.09	7 *	84.77 *	" " " 10-11-12
19	387	1.46	124	4.57	9 *	62.69 *	" " " 10-11-12
20	492	2.57	524	2.40	12 *	105.12 *	" " " 10-11-12
21	70	2.74	27	7.10	2 *	95.89 *	" " " 10-11-12
22-24	985	3.00	2308	1.29	44 *	67.05 *	" " " 10-11-12-14
AV. 13-24	—	2.24	—	1.68	—	77.18 *	" " " 15
25	680	1.22	1070	.77	17 *	48.82 *	" " " 16-6-11-17
26	680	1.13	1136	.68	17 *	45.35 *	" " " 16-6-11-17
27	400	1.32	611	.87	10 *	53.00 *	" " " 16-6-11-17
28	680	1.45	1244	.80	17 *	58.00 *	" " " 16-6-11-17
29	680	1.29	1050	.84	17 *	51.76 *	" " " 16-6-11-17
30	760	2.22	1125	1.50	19 *	89.10 *	" " " 16-6-4-18
31	680	1.60	540	2.00	17 *	63.88 *	" " " 16-6-4-18
32	760	1.20	750	1.22	19 *	48.15 *	" " " 16-6-11-17
AV. 25-32	—	1.44	—	1.02	—	57.83 *	" " " 19
33	560 *	1.25 *	807 *	.86 *	16	43.75	" " " 10-6-11
34	320 *	1.34 *	461 *	.93 *	8	53.75	" " " 10-20-11
35	320 *	1.82 *	461 *	1.27 *	8	73.12	" " " 10-21-11
36	240 *	1.60 *	246 *	1.57 *	6	64.16	" " " 10-6-11
37	240 *	1.75 *	246 *	1.74 *	6	70.00	" " " 10-6-11
AV. 33-37	—	1.50	—	1.13	—	57.27	" " " 22
38-40	622	4.66	761	3.81	24	120.80	" " " 23-24-11
41 TO 741 INC	–	1.13	–	–	–	42.20	" " " 25
	–	.81	–	–	–	33.10	" " " 26

Notes.

1. Located in Northern New York.
2. Fan Ventilated—Hot Air Furnace Heat.
3. Fuel—Natural Gas.
4. Fuel—Coal and Natural Gas.
5. Fan Ventilated—Combined Hot Air Furnace and Steam Heat.
6. Fan Ventilated—Steam Heat.
7. Average cost with gas at 32½c per 1,000 ft. Pea coal, $4.74 per ton. Egg coal, $5.97 per ton.
8. Gravity Ventilation—Air quantity uncertain. Steam Heat.
9. Gravity Ventilation—Air quantity uncertain. Furnace Heat.
10. Located in Suburban New Jersey.
11. Fuel—Coal.
12. Steam Heat.
13. This is a large high school with the best class of up-to-date equipment including air washers, and a fan operated exhaust system.
14. These three buildings are all Steam Heated from the Central Heating Plant.
15. These averages should be a good index to cost for coal heated schools of moderate size.
16. Located in Western Pennsylvania.
17. Located near the Pennsylvania coal fields where coal can be obtained at very low figures.
18. Located near coal mines and natural gas wells where both are low in price.
19. A good average price for large buildings in cities when suitably increased as cost of coal and gas rises.
20. Natural Ventilating—Combination Steam and Hot Water Heat.
21. Fan Ventilated and Heated—Hot Blast System with Steam Boiler.
22. Good average for small schools—Coal based on Pea, $5.00 per ton. Egg, $7.00 per ton.
23. Location—Minnesota. Three small buildings, extreme winter temperatures experienced.
24. Two buildings have Fan Ventilation, one Natural Ventilation; all Steam Heat.
25. Averages for over 700 buildings under control of N. Y. Board of Education and situated in New York City for years of 1904 to 1906. Comprises an average of modern and obsolete buildings of large and small size. Fuel—Coal.
26. The same as 25 except for the years of 1914 and 1916 showing how improved apparatus and more efficient service and design have reduced the cost in New York City in ten years.
27. Fair average for gravity ventilated buildings in colder parts of the country.

A STUDY OF SCHOOL RECESSES

W. H. Heck, Professor of Education, University of Virginia

Continued from September Issue

Supervision.

The supervision of recesses is not a separate problem but an integral expression of the spirit of the general administration. The best way to find out what a school really is at heart is to study the behavior of children at recess, especially if they are allowed to be spontaneous. To reach an acceptable degree of order and consideration, every effort should be made thru suggestion, control, and punishment, if necessary; but children should not be interfered with, certainly not policed, insofar as they reach by themselves a creditable standard of happy cooperation. They must grow up to self-control, not teacher-control; and too many pedagogical strings at school are as bad as too many apron strings at home.

Yet most children need some adult leadership at recess. They often stand around in a helpless inactivity that tempts an observer to use a prodding-rod; or they engage in haphazard amusements as monotonous and meaningless as "chop-sticks" on a piano. They are like people who cannot spend their wealth, especially in ways that are beneficial to themselves and others. By suggestion and example teachers can lead these children to put more fun into and get more out of recess, to have more organization and variety in their games, and to bring about a wider and heartier association with others. A kill-joy teacher should be ruled off the grounds, and repressive rules avoided. A recess without a good time is not a recess; it is only a breathing-spell. And a recess without laughter and noise is unnatural. But with busy, happy children disciplinary problems tend to vanish and be forgotten. Public opinion will enforce its own social requirements, and the rules of recess will attain ethical sanction.

And what if children do sometimes become excited at recess and get happily tired? The classes immediately following may suffer somewhat, and the relief function of recess may be lessened, at least on the physical side. But children go to school more to live and learn than to learn and live; and they generally live more at recess than in the classroom, and sometimes learn more too.

The custom of assigning the supervision of recesses to most of the teachers in turn—alternately by day or week or month—is uncertain and unwise. The capabilities and methods of teachers in meeting this responsibility will vary so much that no consistent development of leadership will be possible. Police duties can be bandied about from person to person, but leadership never. Better select the best qualified and expect constant service from them, with partial compensation in greater prestige and salary and in relaxation periods at other times in the day. Further compensation will come to the supervisors in the service itself.

About three-fourths of the schools here represented report regular, tho often informal, supervision at recess. Three have none at all, and two none in the high school. This supervision is mainly done by teachers on duty but sometimes by the principal alone. The officials seem pleased with their present arrangements and report very little disciplinary trouble at recess. But the leadership side of the supervision has rarely been developed, and then mostly with the little children or in connection with high-school athletics.

Only gifted supervisors have the desired combination of leadership and of police control, the latter being latent because unnecessary. They need a rainbow of good qualities. They should let the children run their own recesses but should infuse the right spirit into the running; should break up unsocial cliques and check disagreeable individuals; should know and direct the standard games; and should make all anxious to do their part. Above all, the reticent or offish or afflicted children should be brought forward to a recognized place in the group life. Social maladjustments in childhood cause much unhappiness and promise more in the future. And recesses offer to the supervisors fine opportunity of correcting some of these maladjustments by reproving the unjust, restraining the bully, shaming the profane, and boycotting the obscene; by encouraging the timid, teaching the backward, befriending the lonely, and introducing the stranger. Truly this is no trivial responsibility, no mean role for a supervisor. A recess is not an *entr' acte;* it might even be the climax of the play.

Eating at Recess.

The meal times of school children will be studied later on in this series, but the present report includes some data on the school side of this question. In about one-half of the schools a large proportion, in one-third a small proportion, and in one-sixth none of the children go home for dinner or luncheon. Altho family dinners are seldom suited to children near the middle of the school day and altho luncheons or even lunches at school are better, it is difficult to oppose home wishes in this matter at the second recess. The average amount of time allowed for the second recess is little influenced by the number of children going home, except in the large city schools with short recesses. About six of these schools serve luncheon. Children staying at school are generally allowed to take their lunch outdoors, where they eat and play at the same time and scatter around their paper and "left-overs," unless severe rules or an unusual *esprit de corps* forbid. Only two or three schools keep children in the classrooms until lunch is hastily eaten. Which is the better way of dealing with this problem it is difficult to decide; probably the outdoor plan is generally more satisfactory, if luncheon cannot be served.

The prevailing custom, or neglect, of allowing children to eat lunch at two or even three recesses should be condemned. There is no hygienic good in giving the digestive system this extra work to do, especially when the school is demanding mental alertness in recitation and study. Frequent nibbling at food is a bad habit, due to home indulgence and to individual lack of self-control. Eating at the first recess should be prohibited entirely, and children going home at the second recess should not be allowed to bring any lunch at all. If some children have had breakfast so soon that they become hungry early in the school day, then the first recess, instead of the second, should be their one and only time for lunch. All this discussion is based upon the expectation of school dismissal before or at 3:30, and upon the belief that children should have something to eat on their return home, as the third of the four light meals due them during the 24 hours. On account of this third meal, the second at home or school ought not to be heavy or produce that mental heaviness so noticeable after the second recess in many schools.

Drinking of Water.

The drinking of water during the school day should be confined to recesses. With opportunity at two or more such periods and before and after school, a child can get all the water he needs, if only he *thinks* about getting it; and he should be made to think. In fact, a neglect in meeting any real need of this kind and a nervous desire to break the monotony of school work by moving about in or out of the room are the actual causes of most requests to get a drink of water. A first bell could be rung five minutes before the end of recess as a warning to the thirsty and thoughtless to prepare for a dry session; and a little parching later on would be a gentle reminder to those that heeded not. One regulation or very similar regulations for going out either to get a drink of water or to use the toilet, as in most of the schools here represented, imply a failure to distinguish between different needs.

Use of Toilets.

In connection with the general supervision of the school there is another problem that centers in the recesses but is not confined to them. This is the use of toilets during school hours. Tho neglected in the literature and class instruction on educational questions, this daily problem is perplexing in many schools and is dealt with in a multitude of ways.

Every child, if possible, should attend to hygienic needs before coming to school in the morning. It is mistaken prudery not to insist upon this to the children and to their parents. As constipation is becoming one of the most widespread evils of our civilization, both home and school must combine to prevent it in the children. Talks to the boys by a man and to the girls by a woman have proved very helpful in some schools; and especially ought not the subject to be dodged in parents' meetings.

If a child still comes to school without having attended to such matters, he should feel free to "go out" of study or recitation class without embarrassment or punishment. Better sacrifice time and attention to school work than undermine health. But other hygienic needs can generally be met by recesses that are less than two hours from each other or from the opening and dismissal of school; and self-control in regard to these needs should be encouraged. In all cases the child must tell some designated authority at some appointed time the hygienic reason for his going out. If there is much repetition in the case of any child, the parents or even the family doctor must be consulted. It is better to allow going out without request but with explanation later on than to restrain individuals by requiring such interruptions and publicity. Sufficient requirements are those that a slip with name be put on the teacher's desk as the child goes out quietly, that a maximum time be not exceeded, and that explanation and estimate of time be reported to some advisor. In case of little children requests may sometimes be needed, but with older children, especially with girls, they do more harm than good. Hygienic counsel, differentiation of needs, general regulations, individual freedom, and proper explanation—these will meet nearly every case in both an orderly and a hygienic way.

The use of toilets on request during school hours is allowed in most of the schools here represented, the request being omitted in five high schools. There are a few reports of keeping-in or demerit, either for going out at all, for overtime, for more than one in a class out at the same time, or for going out soon after recess. Records are seldom kept, but sometimes

names are put either on the blackboard, on the teacher's tablet, or on individual slips. There is very little report of dissatisfaction with present plans.

Rainy-Day Schedules.

Of 24 of the schools here represented eleven do and thirteen do not make some change in their schedule on account of bad weather; and naturally the representation of town and rural schools is greater in the first group and of city schools in the second. The change is generally a shortening of the second recess, or even a combination of two recesses into a short one, and a proportionately early dismissal of school. With children moving about the building and eating their lunch, discipline is more difficult, even when all the teachers are on duty. The children who generally go home for a meal either anticipate a rainy-day schedule and bring lunch with them, or they share the lunch of friends, or they wait until their return home. A change of schedule after the school day has begun sometimes inconveniences these children and especially those parents that come or send for students. Some principals are strongly opposed to rainy-day schedules and seem to be supported by the homes in this opposition.

The problem is primarily one of local conditions and sentiment, but the burden of proof in every case should rest upon those that introduce changes for inclement weather. Every effort should be made to get the best into and out of the regular schedule before cutting down the recess time. This cutting down really amounts to cutting out the recesses, which are too valuable to be omitted thoughtlessly. Why not omit a singing lesson every time a few children have the sniffles, or a history lesson every time the teacher is not prepared?

Bad weather is more often a state of mind than a meteorological fact. It is fear of the weather bogey. And children soon learn from parents and teachers this kind of phobia; they must not get wet, they must avoid the mud, they must not get cold, they must keep out of the wind. Most of this teaching weakens body and character. A child that is scared of a raindrop ought to be made ashamed of himself; and so ought a child that runs for cover as soon as he sees a cloud in the sky or shrinks from mud on his garments as from a spot upon his soul. Children ought to be dressed properly for cold or rain or mud and then be turned out with little regard for weather, rain coats and rubber caps and overshoes being as necessary equipment for school children as pads and pencils. Learning to meet changes in weather without timidity or whimpering is no small part of education both for boys and for girls. Of course, these arguments may not be valid for invalids, for whom exceptions must be made; but schools are not sanitaria.

Schools in city, town and country ought to give rainy-day recesses a fair trial, demanding some ingenuity on the part of teachers and children in arranging for outdoor activities in rough weather, with due regard for character and size of playgrounds. Everyone should take pride in making such recesses healthful and pleasant. Overshoes can save many schools from an overdose of mud; but there is no reason to revolt against a little mud brought in on shoes or clothes or hands, for it is not deadly and will be cleaned away sooner or later. When the weather is really too severe for outdoor activities, then indoor recesses should be planned with great care. A searching test of school management is the success of these indoor exercises and recreations. Are they orderly, lively and enjoyable? And there is sometimes suspicion that rainy-day schedules are due to poverty in management, the line of least resistance being to avoid rather than master difficulties.

Conclusion.

Most of the suggestions made in this report are tentative and dependent on local conditions; they are stated in the hope of promoting discussion. But there is often emphasized in the preceding page a conviction not at all tentative; that recesses can have inestimable values beyond those generally granted in theory or realized in practice. The dictionary definition of recess as "cessation from employment" is still accepted and applied in many schools thruout the nation. In these schools children are let out for an interim, with little sense of responsibility in the heads and hearts of the faculty for what the children do or say or think, so long as they do not run against the barriers of discipline. The main purpose of the present paper is to substitute for this negative attitude a positive one of helping children to gain more health and happiness, initiative and persistence, courtesy and consideration, fellowship and service thruout the recesses. For this high purpose these periods deserve space and time and equipment and, above all, special leadership, just as the recitation and study periods do. And probably the recesses will pay the highest interest on such an investment of public funds and individual devotion.

Schoolhouse Heating and Ventilation

A Valuable Study of Methods and Requirements as Based on the Indiana Law. Prepared by C. B. Veal of Purdue University, for the Indiana Department of Inspection and Supervisors of Public Offices

(Concluded from September.)

Proven Requirements.

In taking up the proven requirements of the present plan for effective schoolhouse heating and ventilation, Prof. Veal reduces the logical requirements to four universal necessities: (a) Heat, (b) Ventilation, (c) Reasonable cost, and (d) The safety of buildings and occupants. He discusses these in the final section of his report on methods of heating and ventilation as follows:

Of these four, heat is given the position of first importance because a primal necessity. Perhaps reasonable cost should rank next, since the dictates of good business judgment and the compulsion of the law most frequently make the item of cost the determining factor in the selection of a heating and ventilating system, but because of the intimate relationship between heat and ventilation, in the demand and means of securing the same, ventilation will be considered before cost. That the equipment of school buildings should be safe is so apparent as to need no comment.

I. Heat.

Heat is an established physical necessity. There is wide difference of opinion as to the actual requirements in ventilation, or what special arrangement, if any, should be made to secure it, but no one doubts that some means of maintaining the body temperature is indispensable. However, in the supply of heat, capacity alone does not furnish all that is to be desired. Aside from the waste in heat energy, excessive temperature is the one factor in ventilation upon which all are agreed as being detrimental; and if this high temperature is associated with a high relative humidity the result is especially injurious. During the time that artificial heat is required and thruout the hours of occupancy the temperature should be uniform within each room and constantly maintained within the ranges of the following minimum requirement schedule, recommended by the American Society of Heating and Ventilating Engineers.

Class, study, lecture and recitation rooms	66° to 67° F.
Auditoriums and assembly rooms.	64° to 68° F.
General laboratories, domestic science, and manual training rooms	62° to 68° F.
Gymnasiums	55° to 65° F.
Offices, reception rooms, teachers' rooms, and retiring rooms	65° to 70° F.
Corridors	60° to 70° F.
Play rooms, lunch rooms, locker rooms, wash rooms, dressing rooms and coat rooms	60° to 68° F.
Toilet rooms	55° to 68° F.
For rooms not named, and according to use	60° to 70° F.

A sufficient number of large, accurate, easily read thermometers should be placed in each room to enable the teacher at all times to determine the actual degree of uniformity in temperature thruout the room.

Any source of heat which does not contaminate the air or conflict with the regulations of the Health, Fire, Building or Electrical Public Authorities should be permitted to supply heat loss from the building thru radiation, convection, conduction or the processes of ventilation.

Temperature regulation by hand, or automatic control, should be provided to act separately for each room and its operation should interfere in no way to decrease the volume of air required for ventilation.

II. Ventilation.

The correction of too low a room temperature is the problem of heating, and without developing the reasoning, the conclusion is justifiable that the correction of conditions above this critical temperature is the primary problem of ventilation. On every hand there is a demand for "fresh air," and to a great extent in the professional, as well as the popular mind, this has come to mean outdoor air, but the best authorities agree that untreated "outdoor air," especially under city conditions, is seldom fresh air or even clean air. Temperature and humidity have little to do with the common conception of fresh air, but at present there is almost a unanimity of scientific opinion that these, and other physical conditions, and foreign bodies such as bacteria and dust particles, rather than any chemical constituents of the atmosphere, are of the most importance. As previously mentioned, the one principle of ventilation upon which experts are agreed is that high temperatures are destructive to health and mental vigor, and "fresh air" may best be regarded as clean air in gentle, almost imperceptible motion, and to further assure maximum comfort and render this air best suited for breathing it must have proper humidity as well as proper temperature, cleanliness and movement.

a. *Temperature.* As a requirement of ventilation, entirely aside from heating, there should be a temperature range limitation.

b. *Cleanliness.* Fundamentally, the air supply for ventilation should be free from dust, bacteria and other contaminations. The elimination of dust from the air supply, by means of air filters or air washers, is always desirable and may be absolutely imperative under some conditions of especially unclean air supply.

c. *Movement.* A proper movement of air in contact with the body to assist in its normal dissipation of heat and prevent stagnation can best

(Continued on Page 76)

THE SCHOOL'S RESPONSIBILITY TOWARDS CHILD ACCOUNTING

H. O. Dietrich, Supt. of Kane, Pennsylvania Schools

Once upon a time not many years ago, a distinguished French psychologist paid a visit to a Parisian school. It was accounted an excellent school, and its principal beamed with unpardonable pride when the visiting psychologist explained that he would like to see the pupils at work. Forthwith his desire was granted and for a time he attentively followed the exercises of a class of forty children. He said little by way of comment however until toward the close of the lesson when he abruptly inquired: "Which of these pupils do you consider the most intelligent?"

"That boy yonder," the teacher replied, nodding toward a pleasant youngster who was diligently reading his book.

"And pray how old is he?"

"He is 12."

"That I suppose is the average age of the class?"

"Well, no, I should say that they are on the average ten years old."

"What then is this 12-year-old doing among them?"

"If he is so bright, why is he lingering among these little ones? My dear sir," the psychologist continued while the principal stood in abashed silence, "would it not be nearer the mark to call him a backward instead of a bright child? And would it not be well to search for a cause for his backwardness and try to remedy it? Assuredly this boy should constitute for you a delicate problem that insistently demands solution."

This, I say, happened not many years ago. For that matter, incidents quite like it occasionally happen even today, testifying impressively to the inability of some teachers to appreciate the presence, let alone the significance of child-progress. It is quite exactly for that reason that I am going to try and impress the importance more deeply upon our minds at this time by what I have observed in the schools under my supervision.

Any corporation that does not at times make a survey of its business, the efficiency of its men, the methods of administration, etc., will soon be running at a loss, and this is just as true of our school systems as of corporations. It is the duty of every supervisor of schools to present to his people undeniable facts concerning school conditions. Mere guesses or estimates in judging school work are of no value. Too long have both teacher and pupil been judged by estimates and general opinions.

Too often people are held under a misconception of the actual work of the schools. The superintendent, very often like the Czar of Russia, wants his people to be ignorant of the working of the school; and just as long as schoolmen take this attitude just that long will the public school system follow in traditional steps, instead of blazing a way so that others may easier hit the trail.

It is for this very reason that I wish to lay before you the result of a study of child progress in one city of Pennsylvania. I have no doubt but that the same conditions exist in hundreds of places. In examining school reports from all sections of the state of Pennsylvania, I find that a number of them do deal with the retarded child insofar as naming the number: under-age, normal, over-age, with their respective percentages. This is very good insofar as it goes, but if it stops here, the investigation has been in vain.

A number of investigations has been made thruout the country concerning retardation which is very good indeed but if we stop with these investigations, it's like the prohibition people fighting for a dry nation until it is legally dry, then fold their hands and say, "Well, the fight is won." The real work then begins. So with these surveys. It is not enough to reveal certain weaknesses of a system but we must by sound investigation seek to remedy the wrong.

Believing that the major emphasis should be placed upon the kind of service the schools render to the community and since the schools as at present organized, deal almost exclusively with the education of children between the ages of six and sixteen, the first problem of investigation should be to find how much the schools are helping the children.

Are the children in our schools cared for in the proper way?

Do they make natural progress? A child makes natural progress when he under our present system passes each step, whether half or whole year, without the loss of any time. A child entering at six and finishing the elementary course at fourteen would make natural progress. A child who does not do this is a misfit or retarded child.

The public school has two functions to perform. First a social and second an educational function. For every child who enters at 6 and completes the elementary school course at the end of 8 years, the school has fulfilled the social function. It is not enough, however, that the school perform the social function. The school owes a function far greater than that, viz: an educational function.

The school performs this function when it starts the child at the right age and sees to it that he serves no over-time. By that we mean that whenever a pupil shows signs of weakness in one or more studies which would probably keep him in the same grade for more than the regular time, the school gives extra help to that pupil in the form of an extra teacher for certain hours or days a week so that at the end of the year he is able to pass along with the regular grade. There always will be exceptions to be sure: there will always be those who on account of sickness will not be able to make their grade. The school, however, will be performing its duty educationally by helping the individual and thru the individual the masses.

There are different methods which may be used to determine whether the schools perform these two functions: first, the Age-and-Grade table will answer the question whether the schools perform the social function. Second, the Age-and-Time table will answer the question whether the school fulfills its function educationally.

A third method sometimes used is to locate the whereabouts of the 13-year-old child. These children have almost reached the limit of compulsory school and it is certain that those not within a year or two of graduation will nearly all drop out without completing the course. This furnishes a measure of what the school accomplishes for the children within the compulsory period.

The fourth method is to have teachers locate repeaters. The teachers here become interested in individual pupils, but the weakness lies in the fact that it only takes into account the child for the present grade.

In making the survey of the Kane schools in child accounting I have used the four methods mentioned to be sure that no injustice would be done to the school system. Out of an enrollment of 1,224 elementary pupils taken during the first month of school: 411 were over-age, 453 were normal and 360 were under-age. In other words about 33 out of every 100 pupils were below normal age, 37 normal age and 30 over-age.

Age and Progress Group.

	Young	% R.N.S.	Normal	% R.N.S.	Over-age	% R.N.S.	Total Pupils	Total %
Rapid	119	9.4	96	8	14	.1	229	18.7
Normal ...	221	18	246	20	103	8.5	570	46.5
Slow	20	2	111	9	294	24	425	34.7
Total	360	29.4	453	37	411	33.5	1224	99.9

Out of every 100 children in the Kane schools:

- 33 are below normal age — of these: 6 have made rapid progress; 16 have made normal progress; 11 have made slow progress
- 37 are normal age — of these: 8 have made rapid progress; 17 have made normal progress; 12 have made slow progress
- 30 are over-age — of these: 5 have made rapid progress; 14 have made normal progress; 11 have made slow progress

34% fail to get thru on time.
34% have made slow progress or we might say 68% fail to derive social benefit of school.
26% fail to derive educational benefit of school.

174 children served 1 or more years' overtime.
97 children served 2 or more years' overtime.
47 children served 3 or more years' overtime.

Of 124—13 year old children
63 were scattered in grades below the seventh.
61 were scattered in seventh and eighth grades.

Probably 50 per cent of the 13 year old children will drop out and to less than ½ of them is the school fulfilling the social and educational function.

Age and Time Table Grade 5 Div.

Years in school	AGES														Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1.....																
2.....																
3.....				2												2
4.....					5	21	4	3								33
5.....					6	26	24	6	3							65
6.....						7	19	13	6	1						46
7.....								2	5	2	1					10
8.....									1	3						4
9.....										3	1					4
10.....												1				1
11.....																
12.....																
13.....																
14.....																
15.....																
				2	11	54	47	24	15	9	2	1				165

On 5 grade basis out of 100 children in the Kane schools:
- 19 made rapid progress.
- 42 made normal progress.
- 35 made slow progress.

Age group	No.	Per Cent
Below normal age	67	40%
Normal age	47	28%
Above normal age	51	31%

Progress group	No.	Per Cent
Rapid progress	35	21%
Normal progress	65	39%
Slow progress	65	39%

Age and Progress Group for Grade 5.

	Young	Normal	Over-age	Total	Per cent
Rapid	28	4	3	35	21
Normal ...	32	24	9	65	39
Slow	7	19	19	65	39
Total	67	47	51	165	99
Per cent...	40	28	31	99	

Considering the enrollment from the progress side we find 229 who made rapid progress, 570 normal progress and 425 slow progress. Translating these in terms of per hundred enrollment, there were 19 out of every 100 who made rapid progress; 47 who had made normal progress; and 35 who had made slow progress.

Address delivered before School Men of Pennsylvania, University of Pennsylvania, Philadelphia, April 12-14.

These conditions are way over and above what they should be; but are presented in their best form. Should we take room by room conditions would still appear worse. There was one room for instance in which there was not a single pupil out of an enrollment of 33 who was of normal age or who had made normal progress. In other words a room with 100 pupils of that type would have 100 per cent over-ageness.

The first part of the survey shows that the Kane schools are lacking in their social function in that almost 34 per cent of the total enrollment fail to get thru on time and adding to this the people who had made slow progress and were over-age we find that about 60 per cent of the Kane children fail to derive the social function of the school. About 26 per cent or about one-fourth of our children in the elementary schools are not getting their due share educationally for 174 pupils were serving one or more years' overtime, 97 two or more years and 47 three or more years, a total of 318 who were not deriving the benefit of the educational function. This investigation did not include those who served overtime less than one year or more than four years.

The 13-year-old child should be in the seventh school year or the seventh grade. By investigation we found that out of 124 thirteen-year-olds, 63 were scattered in the grades below the seventh and 61 in the seventh and eighth or normal years of their school life. This shows that 50 per cent of the 13-year-olds undoubtedly will drop out before they complete the elementary school course.

To less than one-half of these 13-year-old children then is the school fulfilling the social and educational function. These four methods then: first, Age and Grade; second, Age, grade and Time; third, Locating the 13-year-old child; and fourth, Locating Repeaters, clearly set forth the degree of efficiency of our schools as far as child accounting is concerned. It is wrong to judge the efficiency of a school basing such judgment upon the percentage of normal, over and under-age children but at the same time it is the business of the school to give the child every possible opportunity for regular progress. A school must be judged not by the number it helps but by the number it fails to reach.

The facts brought out by this survey are, viz: first, 425 or 34.7 per cent have made slow progress; second, 411 or 33.9 per cent are over-age; third, 318 or 26 per cent have been retained in the system from one to three more years; fourth, 63 of the 13-year-old children will probably drop out of the system without completing the course; fifth, that all of these children are not getting the kind of instruction they should get; sixth, that the schools are neither performing their social nor educational function.

The main purpose of a survey of any kind is to reveal that part of the school system that does not bear its share of the burden; to have the exceptional case stand out prominently. The facts as revealed by this survey are of no significance, unless we find out the reasons for their existence. And then not rest until a remedy is found.

What then can be the reasons for the existing conditions in the Kane schools? Let me in this brief time mention but one of the facts as brought out, i. e., Over-ageness. Of this class there are 411 or 33.9 per cent. Over-ageness may be due to, first, late entrance, or second, failure to progress regularly after entrance, and sometimes is due to both of these causes. The facts at hand, however, show that only about one per cent of the school population entered late. Statistics show that more children enter under-age than over-age. Over-ageness then must be due to failure to progress regularly after entrance.

By investigation I have found these causes for failure of regular progress: first, an elementary school course of eight and one-half years; second, that quantity was given the preference to quality in the course of study; third, waste of one and one-half months in giving examinations; fourth, that teachers taught textbooks instead of children; fifth, children were supposed to be trained in remembering facts instead of being trained to think; sixth, that children lost in addition to the one and one-half months of examinations another month to become acquainted with a new teacher and new conditions every half year; seventh, that teachers were not allowed to use enough initiative; eighth, no attention paid to medical inspection; ninth, no conference between teacher and parent; tenth, ignorance and indifference on the part of parents; eleventh, teachers knew practically nothing about standard scales and measurements.

The next step was to seek a remedy for all this. The significance of all this does not lie in the fact that these children will probably leave school before completing the course, but lies more particularly in the fact that while they do remain the instruction is not adapted to their abilities. Hence such children on the one hand do not receive the full benefits from the instruction; on the other hand being thus improperly classified, they burden the teacher and prevent her from giving the proper attention to the other members of the class. So we can see over-ageness is not significant for the children who are themselves over-age, but becomes significant for all members of the school.

Should we establish special classes for the repeaters alone we would need fifteen in order to accommodate the pupils. At this time it was out of the question to have these classes for financial reasons. Another method would have been to have one building centrally located. This would make possible a better classification and gradation and a better modification of instruction to the particular needs of given groups of children. But this too was an impossibility because we had no such building.

The next step was to establish rapid advancement classes. Many of these repeaters and over-age pupils have abilities, provided opportunities are offered to do more than the regular work in the course. Equally fundamental in reducing the amount of over-ageness in the schools is the necessity of reducing the rate of non-promotion.

The remedy proposed was this: That the system be re-organized, so as to have the one-year, one-grade plan; that we employ an unassigned teacher who would spend her time with these children. Thru the kindness of Dr. Harlan Updegraf and E. A. Jones here I secured a graduate of the university and exceptionally strong in dealing with children of this type. Miss Johnson spends a week at a time at each building. By special methods she brings these children to the point of understanding and development to which they never would have come under ordinary teaching. We employ her by the year, and should there be any who fail at the end of the year she tutors them during the summer months until they are ready to go on with their grade. The results she has accomplished in a short time are amazing. After the first month of her work she had discovered thru the Binet test 23 children whose mental age was all the way from one to seven and one-half years less than their natural age. She visits the homes of these children, talks matters over with the parents, gets them to improve the environment of the child in the home. In this way practically every child in the system is given a square deal.

Many a child is considered feeble-minded when their backwardness is due to causes that can easily be remedied. Faulty mental habits need to be corrected before school-life can bear its fullest fruit. I firmly believe that practically all of our children who are considered dull, backward, defective, or over-age, could have been saved from those horrible names had they been dealt with at an early day.

The prevailing conceptions seem to be that the purpose of the elementary school is to instill into the minds of the children a given number of isolated facts and formal definitions. Children who can master these are considered normal and are promoted. Such a working conception of elementary education represses the abilities of the children and fails to appeal either to their imagination or reason. If school officials, principals and teachers can come to see that the prime purpose of the elementary school is to develop the natural taste and abilities of children, to arouse their imagination, to stimulate their emotions, give them the power to solve problems and to meet practical situations in life, the question of the right of children to advancement will not be based upon mastery of facts but upon ability to do the work of the future. If we wish education to be interpreted in terms of promotion the system should be so arranged that children make regular time in school and the approximate rate of promotion should be 100 per cent.

The system must exist for the child. I am putting all the blame of my investigation upon the system. I have said ignorance and indifference on the part of the parent was one of the causes of retardation. I believe this is only too true. Faulty home training is a large factor in the cause of retardation. And if that is the case, it is the duty of the school to train the parent, educate him so as to take an intelligent and co-operative attitude towards the school. Would the parents appreciate the close relationship between bodily health and health of the mind many a child might not have become an educational "lame-duck."

Aside from the social and educational functions of the school, there is also the financial responsibility. In order to arrive at the total cost of repetition or those who have made slow progress, we must consider the fact that while a number make slow progress, there are also some who advance rapidly and may counter-balance the added expense.

It is evident that if the number of years lost by slow children in a school system were equalled by the number of years gained by those making rapid progress, the money expenditure would be just the same as tho every child were regularly promoted. The following table shows the number of children by grades and number of normal years of schooling. In fact these 1,224 children had not made uniformly normal progress.

1 year slower than normal	295	
2 years slower than normal	90	
3 years slower than normal	32	
4 years slower than normal	7	
5 years slower than normal	1	425
Normal years	570	570
1 year faster than normal	220	
2 years faster than normal	8	
3 years faster than normal	1	229
		1224

A computation based on these figures shows that the children who had made slow progress had lost a total of 613 years, while the rapid ones had gained a total of 239 years. This makes Kane's accounting the following:

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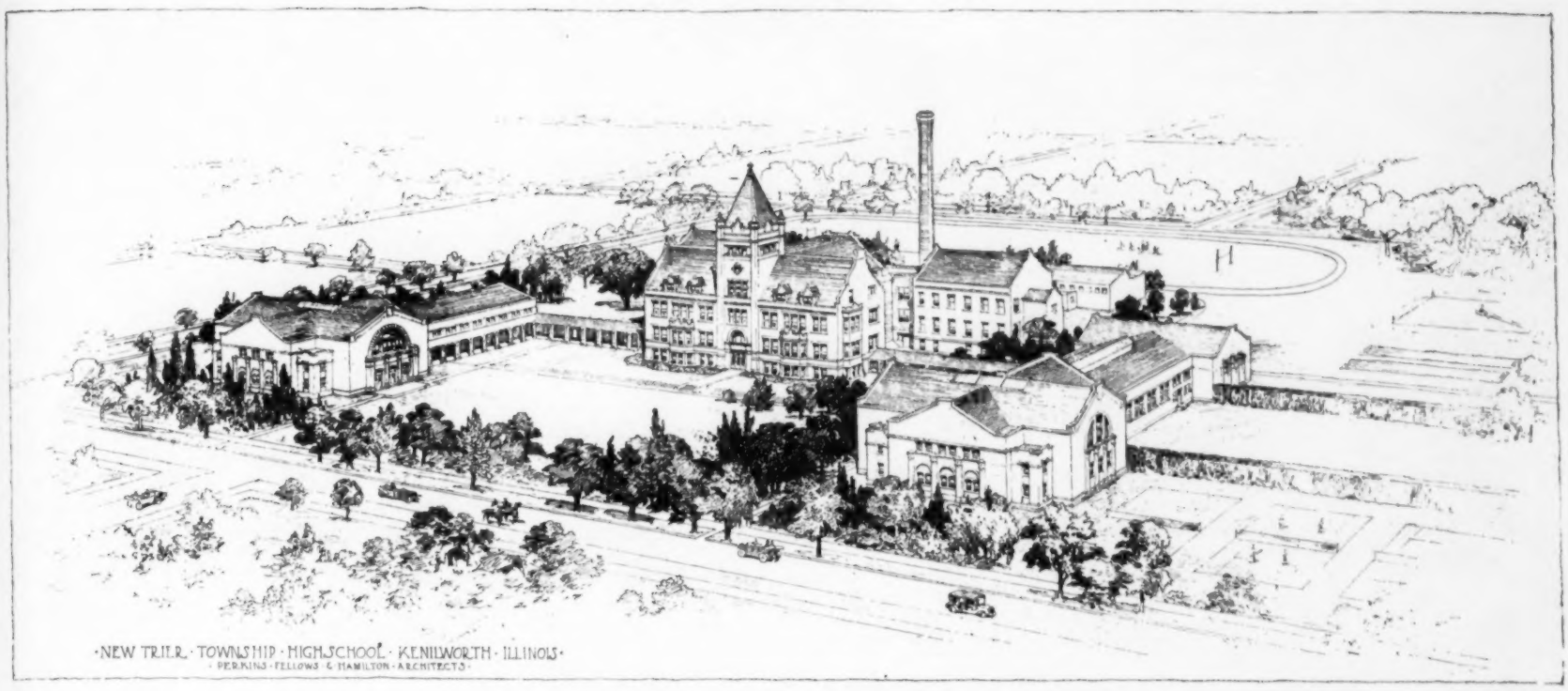


NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.

HIGH SCHOOL PLANNING

Dwight Heald Perkins

Illustrated by four examples from the work of Perkins, Fellows & Hamilton, Architects, Chicago

It is a curious fact that a term so generally used as "High School" does not convey an idea of a secondary school having more or less standardized elements. The fact is, however, that no common interpretation of the term "high school" exists. This is because of the recent and rapid development of the high school idea, and of the various conditions under which high schools are planned and built, as well as the changing and far-from-uniform ideas governing their conduct.

Inasmuch as there is no unanimity, we will assume a definition of a high school, which whether it conforms to the convictions of the reader or not, will at least serve to explain the buildings used for illustrations in this article.

The fact that scarcely any two high school principals would agree at first on the definition of a high school and a statement of its requirements, and that very few principals have the same methods of estimating the capacity of a high school, makes the problem of the school architect both baffling and interesting. He must not only meet the desires and requirements of the board of education for whom he works, but he must understand the principles of the organization and conduct of a high school so that he may plan his building in accordance with general requirements. It is necessary that he build so that succeeding administrations may use his building in later years with the minimum of change or no change other than enlargement.

The rapid development of the junior high school idea, including vocational work in the seventh and eighth grades, or the "six-and-six" plan as opposed to the former "eight-and-four" plan, presents still another changing element, which must be met in the arrangement of modern high schools. Likewise the increasing use of auditoriums, gymnasiums, shops, and other portions of the school plant by the public, is something that must be provided for.

Not a long time ago a high school might be considered complete without study halls, provided there was a seat in a classroom for each pupil, and also provided that there was some kind of an assembly hall. Today this is not the case; some boards and principals demand a seat in a study hall for every pupil in the school; others, for half the number of pupils; and still others are introducing the directed study plan by which study space and recitation space are combined in classroom units, leaving separate undirected study rooms for senior and junior years only. To all of these controlling elements, must be added consideration of school population, which is rarely if ever stationary. The fact that population increases and that additions must be made in the future; that limitations of a financial character always exist, as well as the character and size of the high school site must likewise be considered. The conditions of site obviously control the general shape of the building and it is generally agreed now that a high school for a thousand pupils should contain at least ten acres, and that fifteen acres is better.

Definition of a High School.

From our observation and from conference with many school people, we deduce the following, as a working definition of a high school to accommodate a thousand or twelve hundred pupils:

Classrooms. In the academic department there shall be sufficient classrooms for mathematics, languages and history; in the scientific department, there shall be laboratories, lecture rooms, and store rooms, for physiography, physics, chemistry, botany, zoology, and perhaps horticulture or agriculture.

Manual Training. There shall be in the vocational department, shops for wood bench work, wood turning, wood patternmaking, for foundry, for forge, for machine shop, and possibly for electrical construction. There shall also be a printing shop.

For the girls, rooms for cooking, for laundry work, for sewing, and for practice in the care and maintenance of the home.

Drawing. In the drawing and art department, there shall be rooms and equipment for mechanical drawing, for free-hand drawing, for applied design; for art work in metals and clay. There shall also be studios and laboratories for applied or commercial design, to be used in conjunction with the shops and sewing rooms.

Commerce. In the commercial branch of vocational work, there shall be rooms for typewriting; for stenography; for bookkeeping, banking; correspondence; penmanship and commercial geography.

Assembly Halls. All high schools for a number of years have included an assembly hall, and it is now commonly demanded that the assembly hall be large enough to seat the entire school, and that it be so arranged that it may be used by the public not only in the evening, but during the daytime hours without interfering with school sessions. School boards have come to demand a special type of stage in these assembly halls; one, which may seat approximately two hundred people in a high school of a thousand, and which may be adapted both for dramatics with a small proscenium opening, or for choral work with a large opening. Stages in modern assembly halls are now being adapted for and used by the music departments, so that choruses or orchestras may use them for their daily work, and that they may at such times be separated from the assembly hall; simplifying the problem of administration and heating.

Library. High schools always demand reference libraries; sometimes they are required in one location only; sometimes separated into scientific and classical departments, variously located according to use. Again it is frequently required that the facilities of a circulating library be instituted, in which case, easy public access is a necessity. All of these elements are included in our definition.

Lunch Room. The modern high school requires a lunch room capable of seating at least half of the ultimate pupil capacity, as well as a kitchen and store room large enough and well enough equipped to manufacture and cook and serve foods, and store supplies in wholesale quantities.

AUDITORIUM AND CAFETERIA WING, NEW TRIER TOWNSHIP HIGH SCHOOL.

Gymnasiums. All high schools now require a gymnasium large enough for basket ball and indoor base ball. A change is rapidly coming; in fact may be said to be here, by which the athletic exhibition idea is recognized and provided for. Running tracks are being eliminated in favor of the outdoor field track; and spectators' galleries and seats are taking the place of the former running track inside the gymnasium. It is not an uncommon requirement that a gymnasium shall accommodate at least five hundred spectators. A high school is not regarded complete now unless it has a separate gymnasium for girls, and a natatorium for alternate use of the boys and girls, and some high schools are now requiring what is termed an exercise room for physical drill, in addition to the two gymnasiums. This is more for individual development and preparation than for team athletics, which are coming to monopolize the gymnasium.

Athletic Field. There is practical unanimity now upon the demand that the field and the school be in the same location—a field one-half mile or more away is only accepted as a last alternative. This is particularly true where the Gary idea is being introduced, which involves the use of all portions of the building and accessories at all times. This program not only increases the capacity of the school building and field, but makes it the custom that the field shall be used in the morning as well as the afternoon and necessitates very close proximity and availability.

Accessories. It is unnecessary to mention the accessories which are required by all schools in addition to the above, such as fireproof construction, corridors and stairs; ample exits; locker rooms and toilets; book and supply store; heating and lighting apparatus; administrative offices; vaults, etc. The greatest divergence in any of these items relates to the lockers; some recognized authorities prefer the separate locker room, but an increasing number appear to prefer the corridor locker, if it can be made of metal; be securely locked, and be thoroly ventilated by a constant flow of air in at the bottom and out at the top.

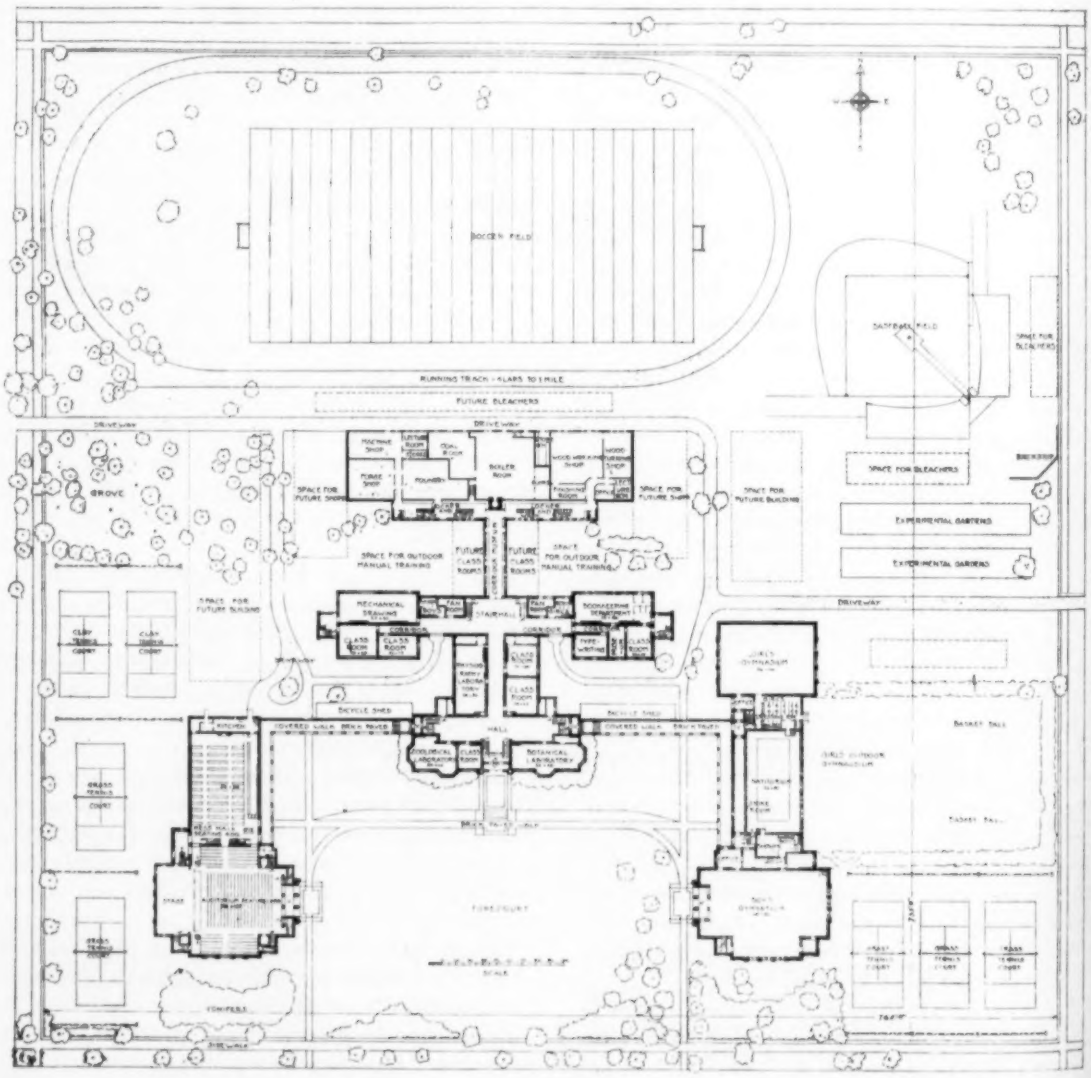
Classrooms are uniformly required which have unilateral light and at least fifteen feet of floor space per pupil; a majority of authorities will prefer east and west light for all classrooms except those used for drawing. South light is preferred for most laboratory work, and north light for drawing; for shops and certain other vocational work.

It is coming to be commonly accepted that classrooms are to be limited in their capacity to thirty pupils. All of this may be regarded as a statement of the requirements of the modern high school, and may be accepted as a definition so far as this article is concerned.

Pupil Capacity of High School Buildings.

It brings us to the next point of consideration, which is that of capacity. The School Board Journal is exerting its influence toward a clear and generally understood statement, or method of determining the capacity of schools. Our own method, which is frankly an approximation of the methods and ideas of a number of educators is, to assume—

First, that a high school has all of the elements described above, and that its capacity may be assumed to be the number of seats in the classrooms (number of classrooms multiplied by thirty) plus fifty per cent of that number. This fifty per cent is assumed to be the number of



PLAT OF NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.

pupils in the shops, gymnasium, laboratories and drawing rooms.

This method will be used in estimating the capacity of the schools used for illustrations in this article.

In this connection a discussion of the number of stations per pupil is pertinent. A school can be arranged meeting this definition and this estimate of capacity with three stations per pupil; that is, there may be a seat in the assembly hall for each pupil; there may be a seat in a classroom for three-fourths of the pupils; there may be seats in study halls for three-fourths of the pupils at one time, and there may be space in some laboratory, shop or drawing room for half of all of the school at one time. This would make a three-station school, and would permit of the degree of flexibility usually required in organizing and conducting a high school. There are authorities, however, who believe that there should be a seat in a classroom and a seat in a study hall, for the entire school, or for every pupil at one time. These proportions, if carried out, show four stations for every pupil, and obviously make the problem of organization much easier. It also gives a home room to every teacher as well as a home desk in a study hall to every pupil. The Illinois school which is one of the four illustrated in this article, is the only one of the four schools here shown, in which this "four station" idea is worked out.

Cubic Foot Cost.

It is not the purpose of this article, which is a discussion of new elements in planning, to refer at any great length to the item of cost. This could not be done in any careful or valuable manner under building conditions, existing in 1917. The method most generally used and the one producing the least confusion, is the cost per cubic foot method. This, however, is misleading, unless it accompanies a definition of a high school which will make clear, what it is that is being provided for each pupil; or in other words, will state the number of cubic feet built for each pupil, or again the number of dollars required to build a high school, per pupil.

This latter test would be the more valuable one, if there were unanimity upon the definition of what should be included in a high school built and equipped for a complete course. The original portion of the Pontiac High School built in 1913, illustrated herewith, was built at the rate of fourteen cents per cubic foot, fireproof construction. This building did not comply, however, with the definition which we are following, and there is at the present time an addition equal to fifty per cent of the original building being constructed. These contracts were let in 1917 and the cost due to present conditions, for construction similar to that of 1913, was twenty cents per cubic foot. Authorities differ in their statements of cost per pupil all the way from $300 to $500. It is the opinion of the writer that $400 per pupil ought to be appropriated at a time when building can be done for fifteen cents per cubic foot, in order that a complete high school may be constructed and at least one thousand pupils provided for. This ratio will decrease slightly as the number of pupils to be accommodated increases.

It is hoped that the efforts now being made by various committees to define and unite upon a system of measurements, may bear fruit; but in order that it may be of the greatest usefulness, such measurements must be related to some equally well understood and accepted definition or statement of requirements of a modern high school. Having determined upon the definition; having acquired the site; and having knowledge of the funds available, the next step in the planning of a high school, is the consideration of type plans and the choice of the general scheme of arrangement.

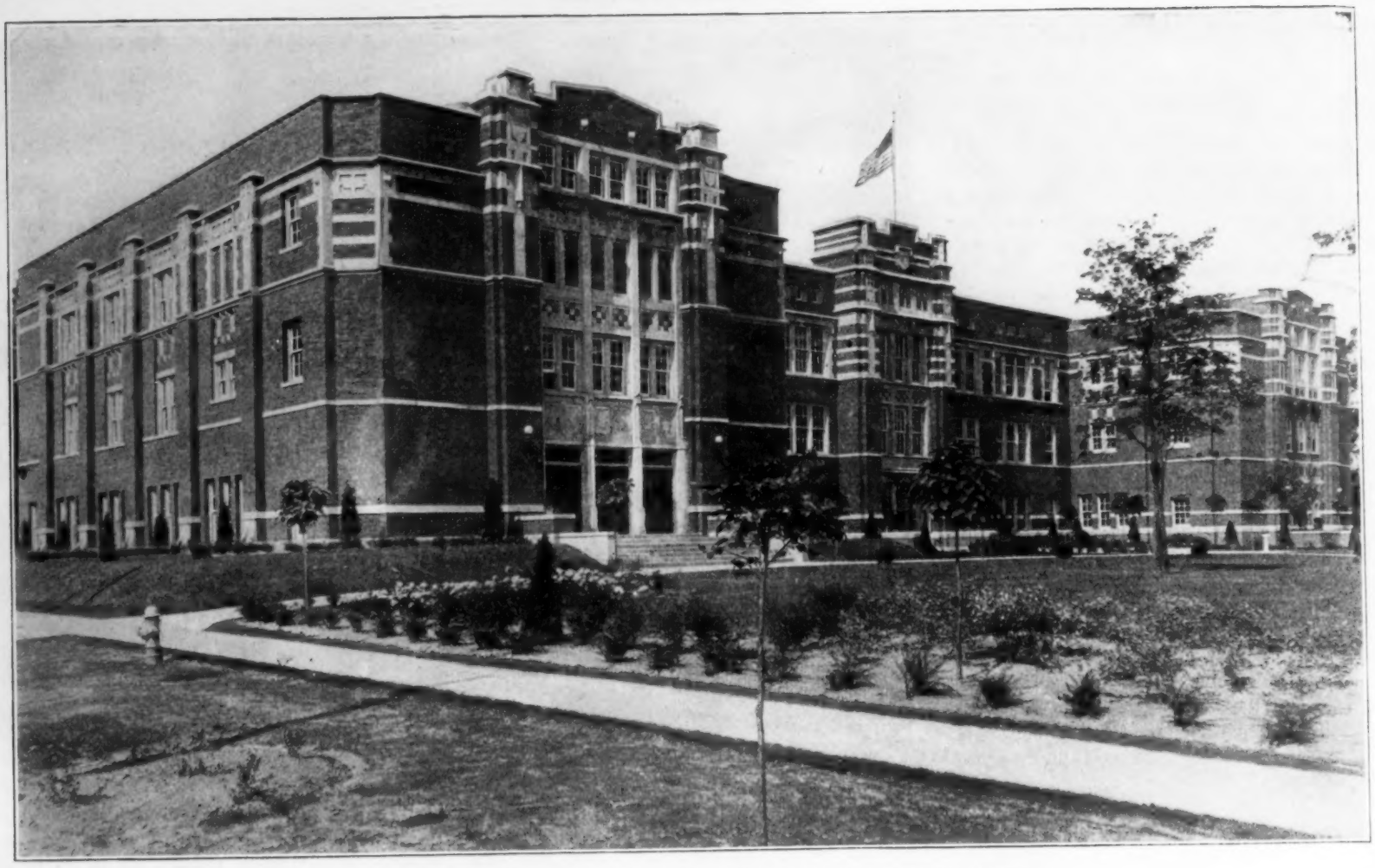
LUNCHROOM, NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.

Types of Plans.

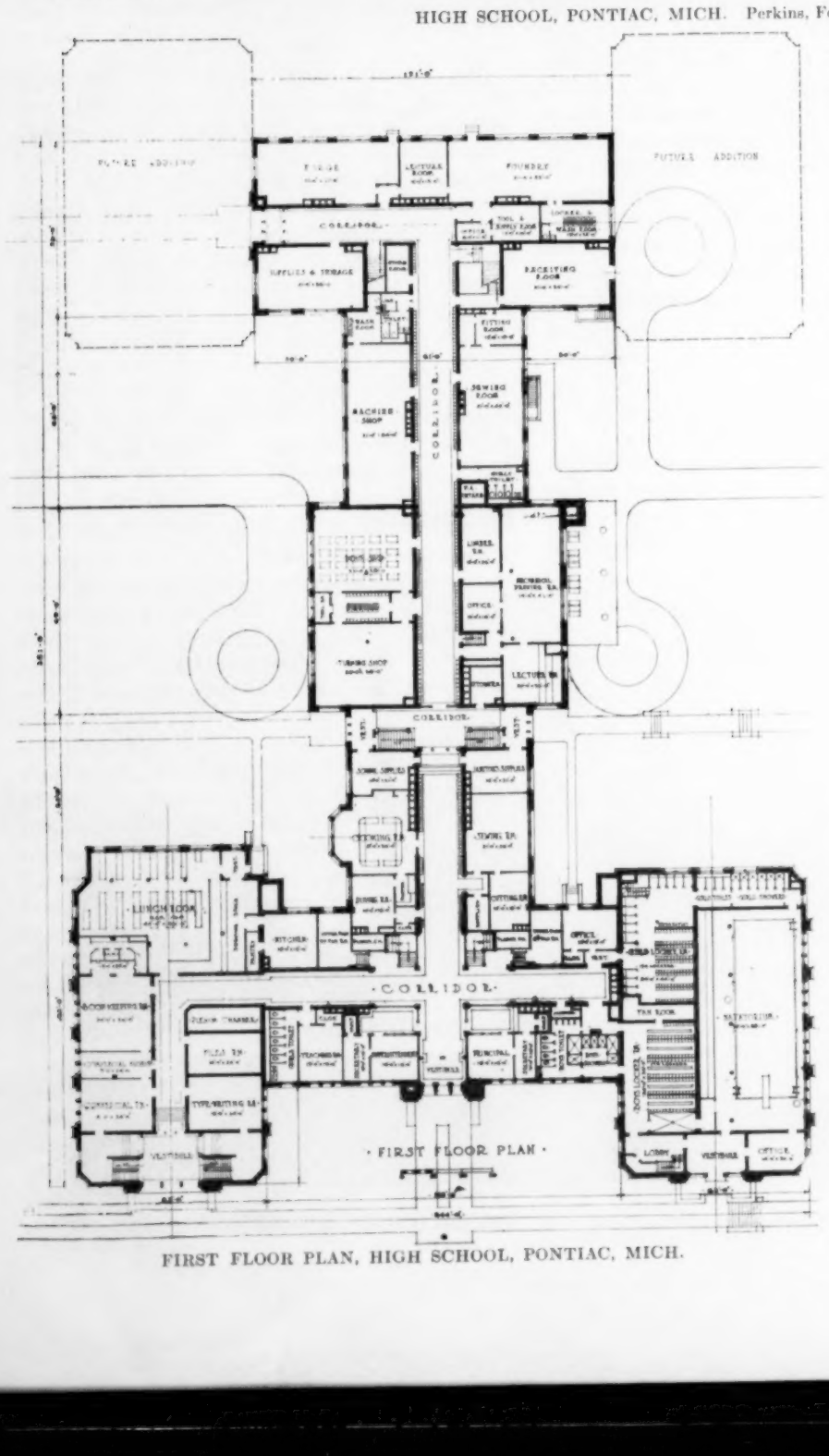
We may to a degree ignore cost in the choice of a type of plan, because the differences in cost between the various types are not great enough to counterbalance the advantages of the most desirable arrangement. Boards should insist upon the provision that the plan be so devised that future additions may be made readily without the loss of school time or public money. Wherever the site contains ten acres or more, perfect freedom of choice in the type of plan will exist. We shall discuss later a solution where such a choice did not exist because of the small dimensions of the site. Having chosen a type which may be built if necessary on the installment plan, the wisest course is to go as far as the funds permit with the best plan and then stop. It is never wise, no matter how limited the funds may be, to build anything which is

(*Continued on Page* 35)

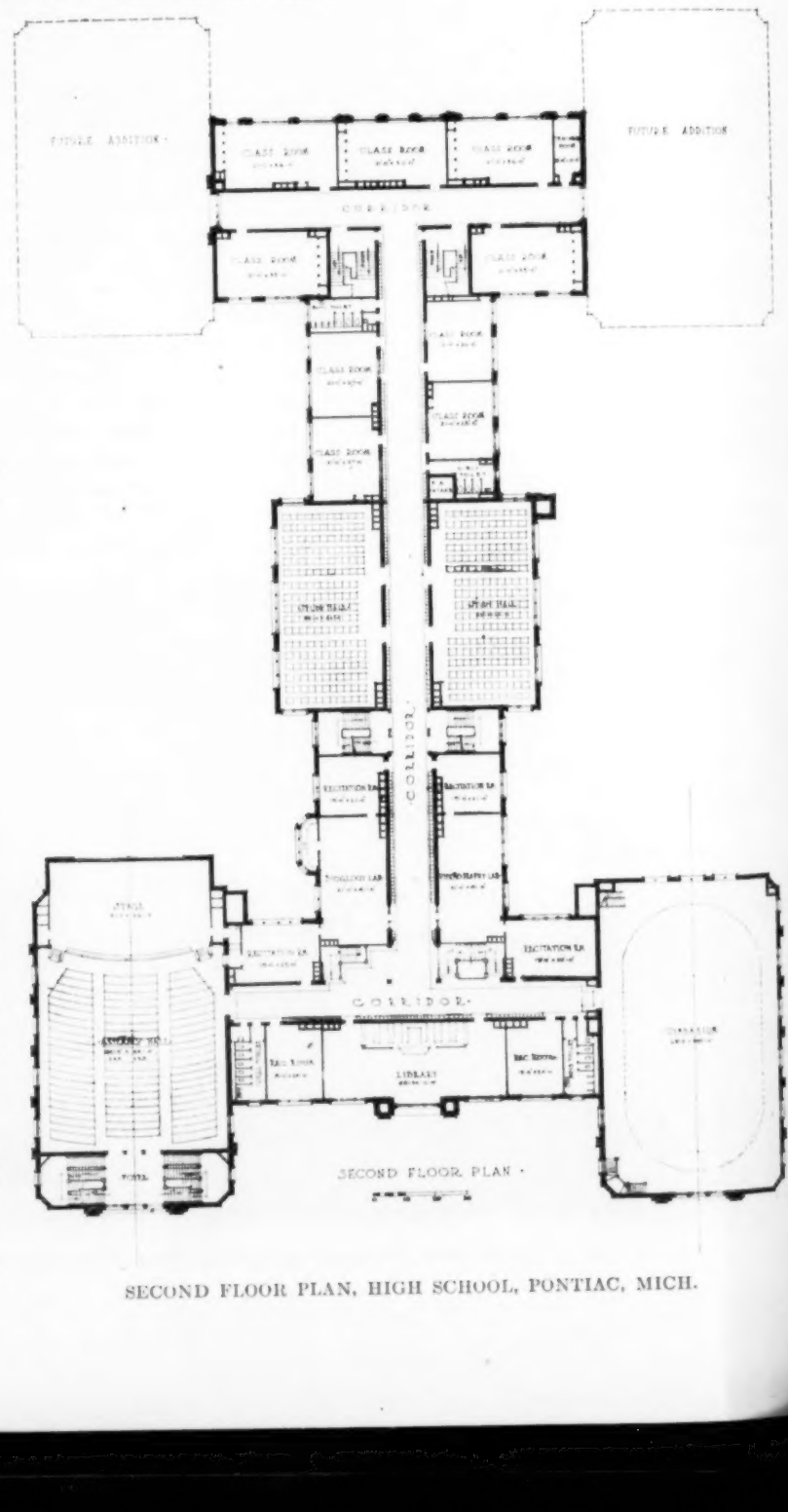
PHYSICAL CULTURE GROUP, MAIN BUILDING SHOP AND ATHLETIC FIELD, NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.



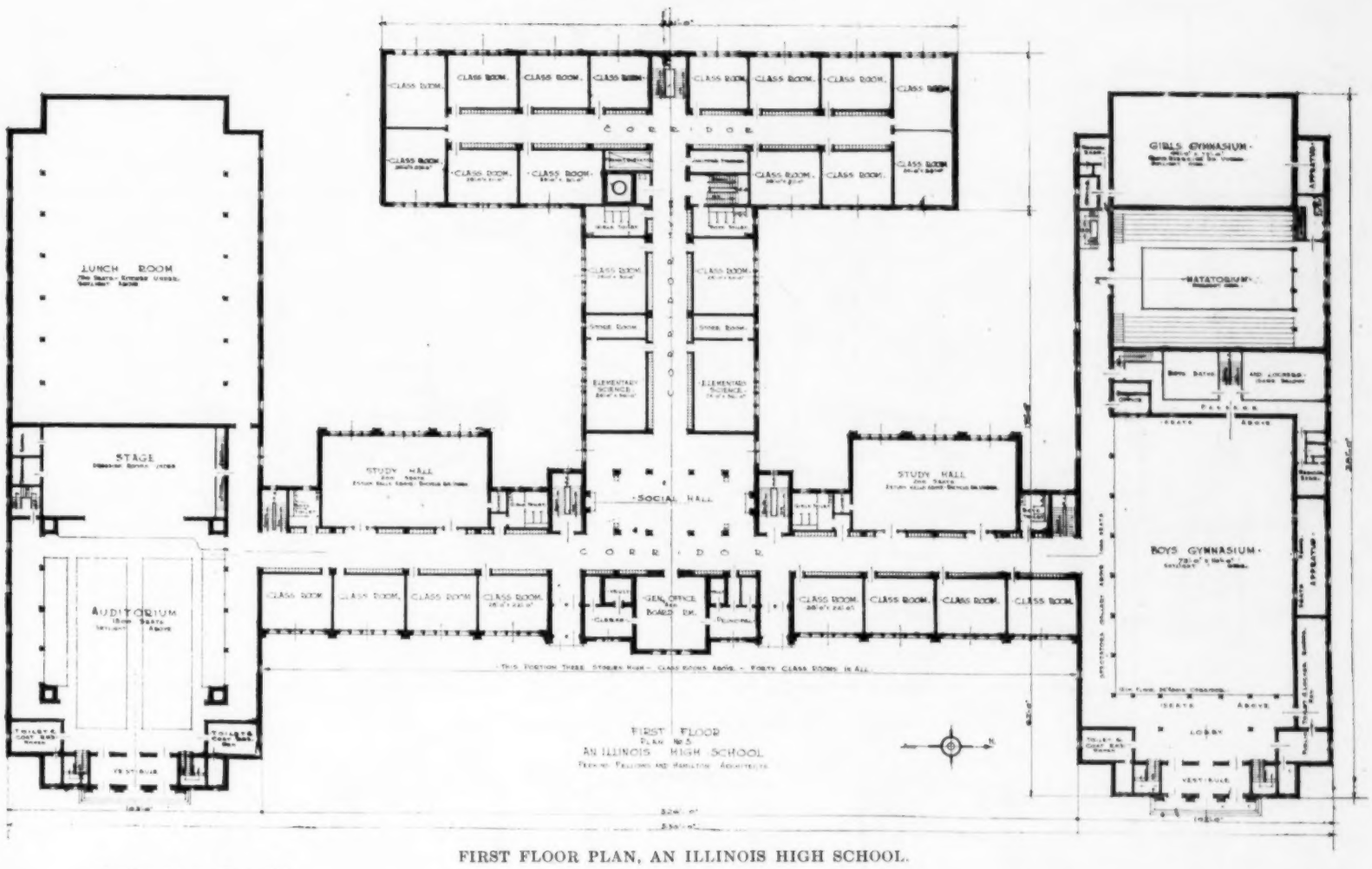
HIGH SCHOOL, PONTIAC, MICH. Perkins, Fellows & Hamilton, Architects, Chicago.



FIRST FLOOR PLAN, HIGH SCHOOL, PONTIAC, MICH.



SECOND FLOOR PLAN, HIGH SCHOOL, PONTIAC, MICH.



FIRST FLOOR PLAN, AN ILLINOIS HIGH SCHOOL.

(*Continued from Page* 33)

not planned exactly as desired. A proper plan partially built, may be completed later; an improper plan can only with difficulty, if at all, be converted into a proper one, at a future date.

The types of plan for comparison and choice may be indicated by such general terms as these: The "Hollow Square Plan"; the "T" plan; "E" plan; "H" plan; the "Group Plan" and the "Group Plan Concentrated."

Hollow Square Plan. The "hollow square plan" has probably been adopted in more cases in the United States than any other general type. It has a center entrance leading directly to the assembly hall, which is in the center of a large court, around which corridors circulate, with educational space on one or both sides.

"E," "H" and "T" Plan. The "E" and "H" plan are in general, composed along lines suggested by the shape of these letters. The same is true of the "T" plan, which has the element of concentrated corridors, and easy control, which none of the others possess to so great a degree. All of these plans may develop into buildings that are well lighted if the hollow square is large enough to make the center court ample.

Group Plan. The "group plan" proceeds generally on the assumption that it is wise to concentrate the academic and scientific portions in a central and higher building than the other portions, and that it is advisable to have such large units as the assembly hall, gymnasium, mess hall and natatorium directly upon the ground level, without basements beneath or stories above. The advantages are greater safety, due to the absence of stairs; greater light due to the possibility of sky-lights; and easier adaptability for concurrent use by the public, or by portions of the school, such as orchestras and choruses, which might disturb school sessions if they were closely related to the classroom portions.

This plan also makes a more practical, better lighted and better ventilated shop arrangement for the manual training department, than any plan in which these rooms are incorporated with others in one main building.

Group Plan Concentrated. The "group plan concentrated," which appears to be a contradiction in terms, is one in which the advantages and elements of the group plan spread over a wide area, are so brought together or concentrated, that the structure may be erected upon a comparatively small site.

It has been found by experience that the group plan does not vary greatly in cost over the large single building, which must be generally three stories high, sometimes more. The extra expense which is occasioned by the greater amount of foundation construction and the greater area of roofs and sky-lights, is offset by the saving in stairways, in thickness of walls; in the omission of basements, and the consequent expensive floor construction between basement and main floors, and the cheaper method of constructing roofs, which in the group instance, may be less expensive and less fireproof than is the case wherever people are housed in rooms built over large areas with great spans.

The fact of the possibility of skylights and the consequent perfect light which their use provides, is so great an advantage as to justify considerable extra expense, even if that be necessary; and of course it is unnecessary to state that the advantage in the item of safety of the people when they are on the ground level, is worth any reasonable amount that it may cost to provide such safety.

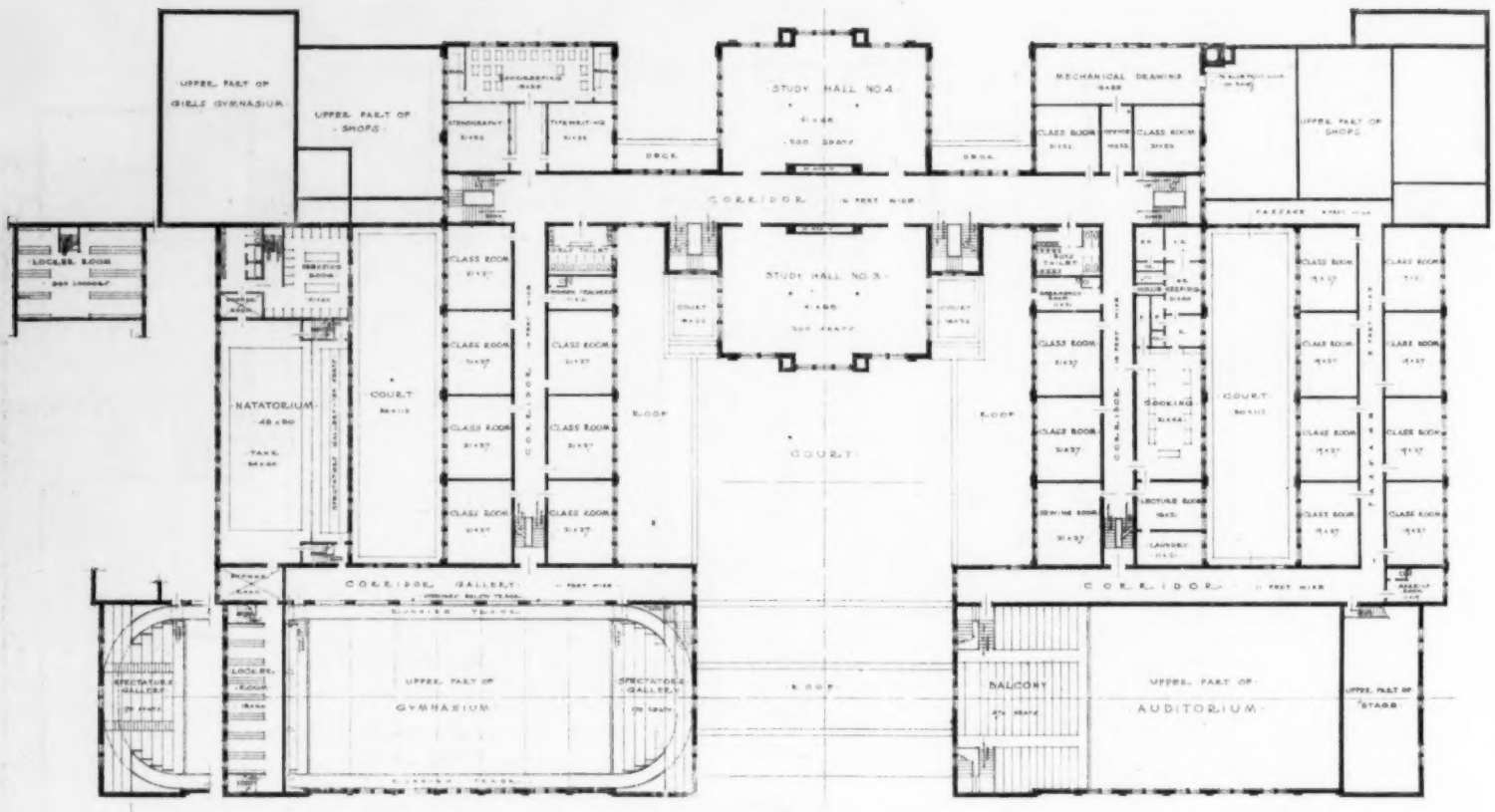
Reference to the accompanying illustrations will also show the very easy manner in which future additions or extensions may be arranged. It is possible to exclude an entire division, like the physical culture portion consisting of the two gymnasiums and the natatorium, if funds are limited, and the rest of the plan can be put up in proper manner, even tho these portions are postponed. This is exactly what happened in the New Trier instance; the physical culture portions were not put under contract until several months after the other portions were contracted for, and not until a referendum vote had been submitted to the people, which resulted in their emphatic endorsement of and demand for these portions of the school.

Another advantage in the Group Idea is that it enables those large units—assembly hall, mess hall, gymnasiums—to be built according to dimensions large enough for the ultimate school capacity. It is obvious that such units cannot be increased after they are once built. On the other hand, classrooms and laboratories not needed at the time the structure is originally erected, may be easily postponed. Such units as these may be multiplied as needed and as the school population grows and need not be built until they are needed. This again is an obvious financial advantage.

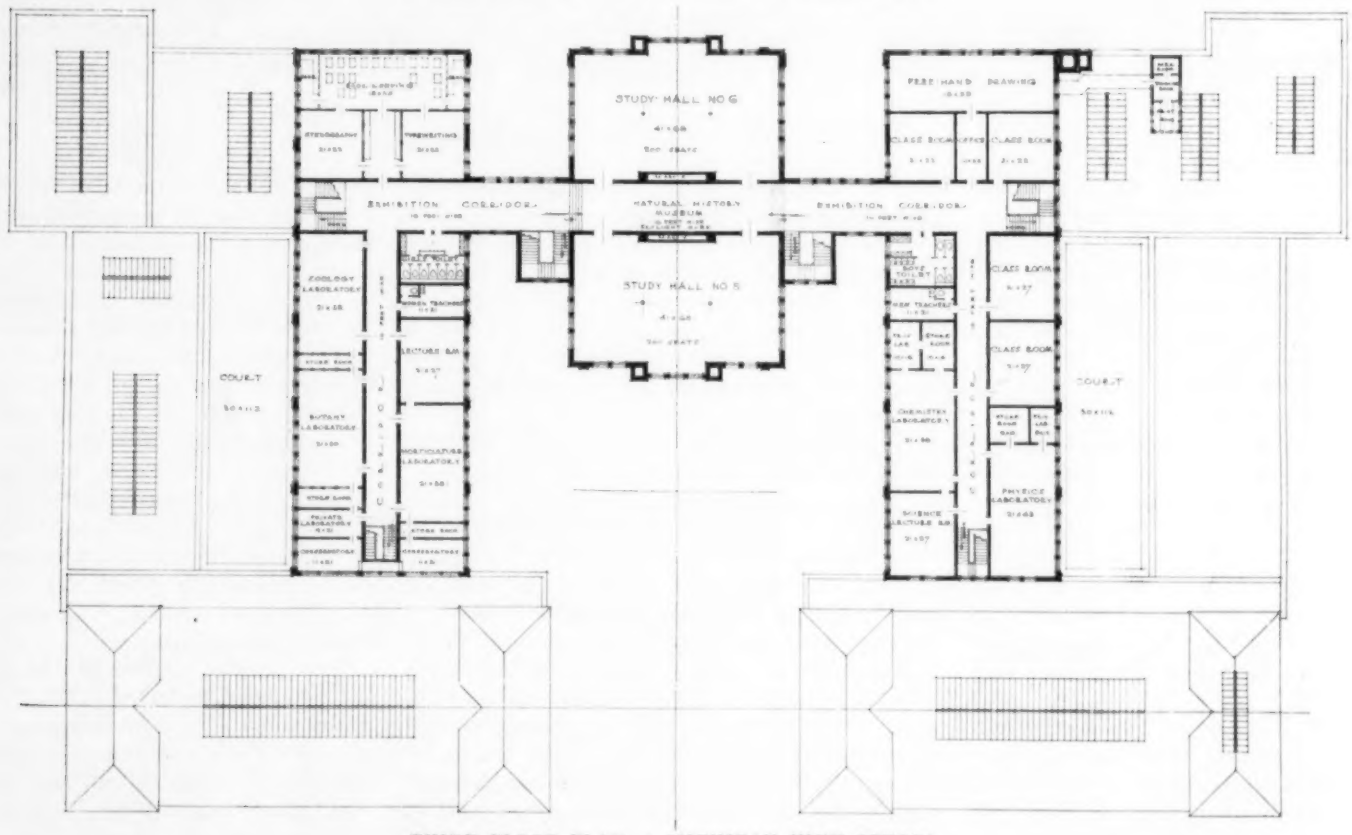
Still another feature of the group plan, and one which is illustrated at the New Trier school, is the freedom to meet changing educational demands. There are two large units planned in the New Trier group without any reference to what their use will be. The space is there; buildings erected thereon may be devoted to most any conceivable educational requirement, and they may be connected with the heating, ventilating and lighting plant, as well as the corridors whenever in the future such educational demand is developed sufficiently to enable these requirements to be known.

The Illustrations.

The illustrations accompanying this article, illustrate: First, The group plan for a fourteen acre site, as was built for the New Trier Township High School at Kenilworth, Ill. Second, the "T" plan adapted to a site which was only three hundred feet wide. The building was erected at Pontiac, Mich. This site is of indefinite and ample length and the additions are therefore being constructed along the main central axis. Third, a plan which has been adopted by an Illinois Township High School Board of Education for construction for a school of from twelve hundred to fifteen hundred students. This is the "T" plan with large units at either



SECOND FLOOR PLAN, A MICHIGAN HIGH SCHOOL.



THIRD FLOOR PLAN, A MICHIGAN HIGH SCHOOL.

end, which may be connected or separated in their use from the central main portion. Fourth, a plan which has been adopted by a Michigan board of education, which illustrates for lack of a better or more logical term, what we call, the "concentrated group." This gives as far as possible, the advantages of both the New Trier open block plan and the "T" plans in both the Pontiac and the Illinois school, under conditions of a very contracted site, about three acres. It is of course obvious that there is no athletic field in the fourth plan, but with that exception, the elements and facilities in our definition are all included in this instance.

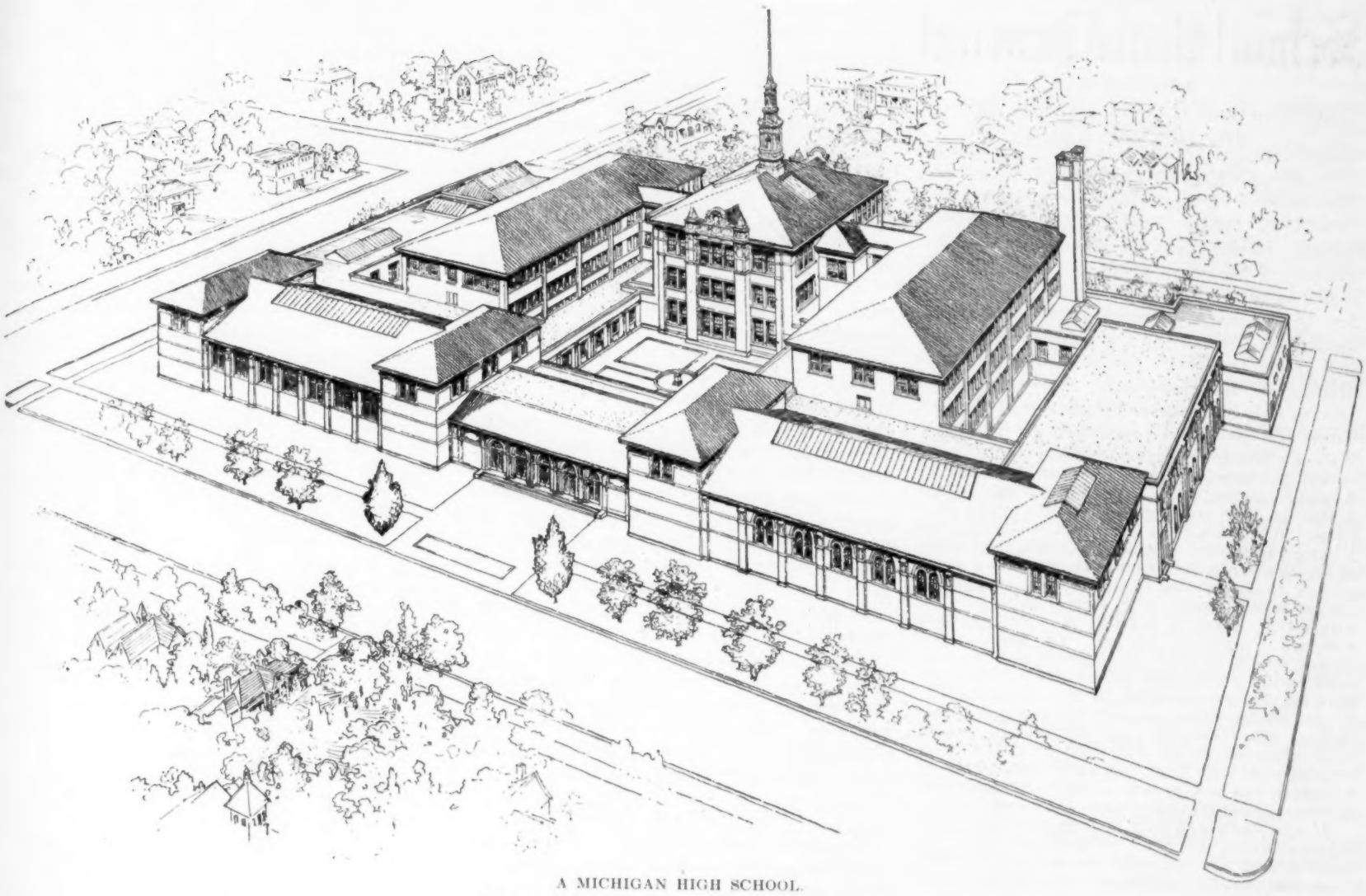
First Illustration—the New Trier High School. In this instance the main frontage is south. The original building which is the central portion around the tower, was designed several years ago by Patton & Miller, architects. The re-arrangement of the center portion and the construction of the surrounding units which is the work of Perkins, Fellows & Hamilton, was erected in 1911. All of the desirable elements noted above in the description of the Group Plan will be found upon examination of the drawings, to exist in the New Trier School.

In addition to this, a quarter mile running track; a foot ball gridiron; a base ball diamond, and seven tennis courts are provided for. The girls have special consideration in the field, a track over an acre in extent being devoted exclusively to their use, and separated from the rest of the field by a high hedge.

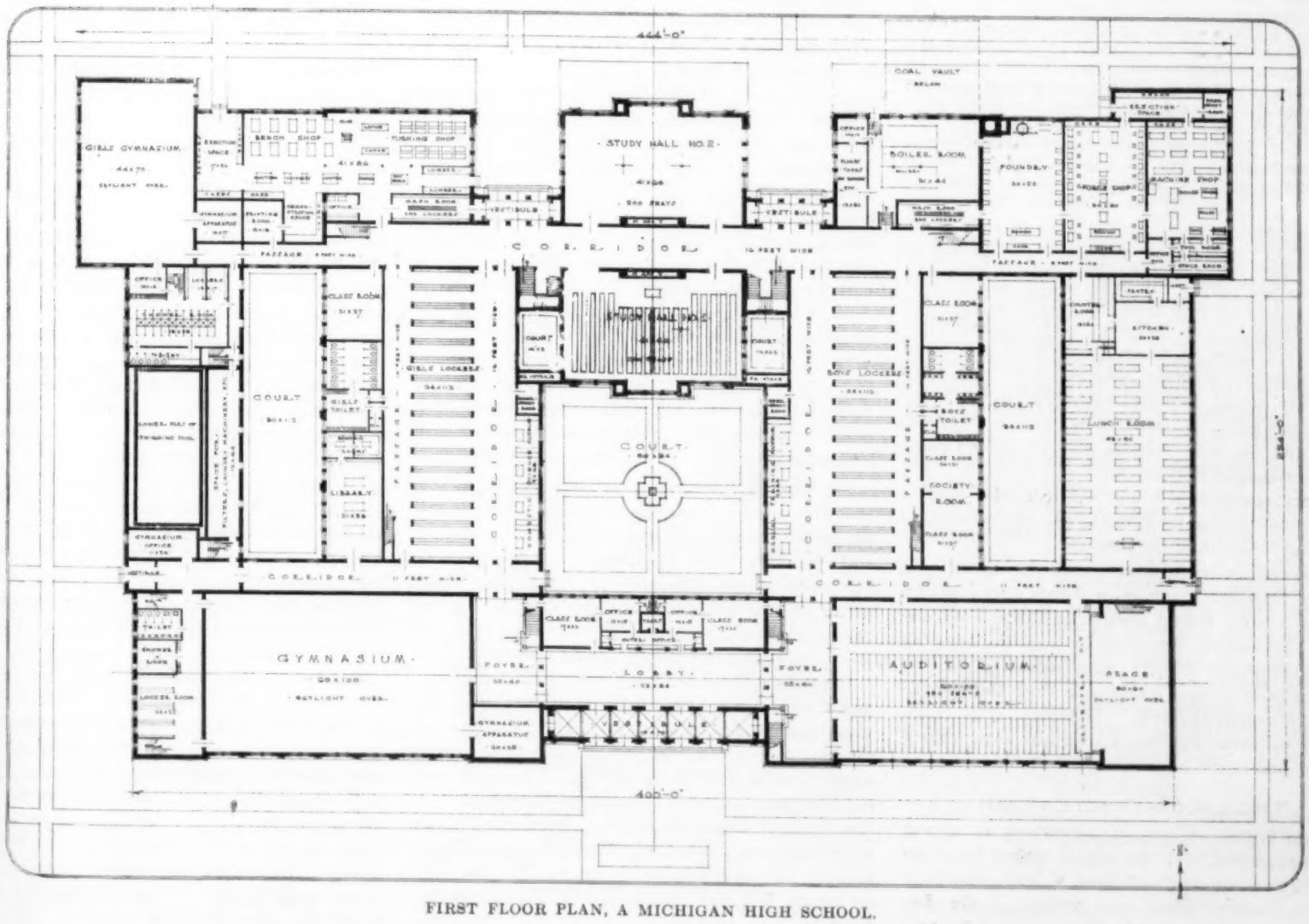
The corridors connecting the main buildings with the outlying units are roofed but not enclosed, it being the desire of the management that the children should have as much exposure to outdoor air as that implies in passing from one part of the plant to the other between periods. The capacity at present is seven hundred pupils; ultimate capacity will be twelve hundred.

Second Illustration—the Pontiac, Michigan, High School. The superintendent in this instance desired local and central control of the corridors and the "T" plan was adopted. The usual assembly hall with the gymnasium either beneath or above, located opposite the main center entrance was avoided, because one or the other is almost always poorly lighted. A main corridor on the central axis was also desired for access to future extensions. A separate unit to the left, or south, in which the assembly hall was located, was built; and a similar wing to the north in which the gymnasium and natatorium were located, was also built. The study halls were placed on opposite sides of the main long corridor, and this corridor is now being extended beyond the study halls to unite the addition at present under construction.

(*Continued on Page* 82)



A MICHIGAN HIGH SCHOOL.
Perkins, Fellows and Hamilton, Architects, Chicago, Ill.



FIRST FLOOR PLAN, A MICHIGAN HIGH SCHOOL.

THE AMERICAN
School Board Journal
DEVOTED TO
Legislative and Executive School Officials
WILLIAM C. BRUCE, Editor

EDITORIAL

SPECIFIC HELP FROM THE SCHOOLS.

Since the war began there has been much discussion of the service which the schools can render in the nation's supreme emergency. Very few of the many proposals have gone beyond the lecture platform or the magazine page and still fewer have been actually translated into practice in the schoolroom. A very practical form of help has now been suggested by the Red Cross and has been proclaimed by President Wilson. The proclamation reads:

"To the School Children of the United States: A proclamation: The president of the United States is also president of the American Red Cross. It is from these offices joined in one that I write you a word of greeting at this time when so many of you are beginning the school year.

"The American Red Cross has just prepared a junior membership, with school activities in which every pupil in the United States can find a chance to serve our country. The school is the natural center of your life. Thru it you can best work in the great cause of freedom to which we have all pledged ourselves.

"Our Junior Red Cross will bring to you opportunities of service to your community and to other communities all over the world, and guide your service with high and religious ideals. It will teach you how to save in order that suffering children elsewhere may have the chance to live.

"It will teach you how to prepare some of the supplies which wounded soldiers and homeless families lack. It will send to you thru the Red Cross bulletins the thrilling stories of relief and rescue.

"And, best of all, more perfectly than thru any of your other school lessons, you will learn by doing those kind things under your teacher's direction to be the future good citizen of this great country which we all love.

"And I commend to all school teachers in the country the simple plan which the American Red Cross has worked out to provide for your cooperation, knowing as I do that school children will give their best service under the direct guidance and instruction of their teachers.

"Is not this perhaps the chance for which you have been looking to give your time and efforts in some measure to meet our national needs?

"Woodrow Wilson, President."

The organization of the Junior Red Cross should be considered promptly by all school boards in conjunction with the state organizations. The membership for children has been fixed at 25 cents and the work suggested includes activities in which all children can share. The manual training departments can make packing boxes, bandage winders, splints, etc. The older girls can knit the regulation "comfort sets" and can sew fracture pillows, crutch pads, bath mitts, gun wipers, etc.

Every school board may well consider itself a special committee to promote the mercy work of the Red Cross thru the schools.

A second valuable work which the schools can render thru the teachers is direct participation in the second liberty loan. In New York the State Education Department has enlisted all the teachers as liberty loan salesmen and is making a strenuous campaign thru the schools and the school children. The plan, it is confidently believed, will popularize the loan among people who could be reached in no other way.

THE CHICAGO SITUATION.

The Chicago board of education is giving ample evidence that the small school board as such is no more efficient than a large board, or that it is more direct and prompt in the dispatch of public business, less inclined to oratory and abuse, or less inclined to interfere with the prerogatives of the professional school heads.

The Chicago board has given evidence, in a few months, that it is ready to overthrow established principles of good school administration and to put aside any established safeguard in the conduct of public business. Thus, the president of the board has placed upon its three most important committees only the six persons who can be relied upon to vote as a unit. The business manager was given authority to purchase $60,000 worth of coal at his own discretion and without the usual formal bids. The problem of selecting textbooks has been practically taken out of the hands of the superintendent and placed in the hands of a special committee. The business manager has been requested to compile lists of textbooks which are official for the schools altho this duty properly belongs to the superintendent and his corps. The "anti-pull rule" which was the most effective means for compelling the employment and promotion of teachers and principals on the basis of efficiency has been destroyed in effect. In the hands of the board the civil service laws of the city are not the effective instrument which they were when the old board was in office.

A board of education which begins its official record in the manner of the Chicago board is undeserving of public confidence. It is inevitable that the press and the public will question whether it solely exists to provide for the education of the city's children or to serve other ends. Never have we seen a good school board law so thoroly ruined by politics.

DEATH OF DR. POLAND.

The death of Dr. Addison B. Poland, superintendent emeritus of the Newark schools, removes an important American educator and a strong city school executive. It also carries away one of the kindliest, and most whole hearted of men.

Dr. Poland was a native of Massachusetts and began his career as principal of the Ashburnham high school in 1876. A year later he was admitted to the bar and took up the practice of law in Worcester. But teaching continued to interest him and after several years he became principal of the Day Street School in Fitchburg. Later he removed to Ilion, N. Y., and from there to Jersey City, as principal of the high school and later as superintendent. He was appointed state superintendent of New Jersey in 1891 and resigned in 1895 to become assistant superintendent of schools in Greater New York. Ill health caused him to resign a year later and to travel abroad. In 1898 he reentered school work as superintendent at Paterson. His election to the Newark superintendency followed in 1901 and he remained here until a year ago when failing health caused him to accept the office of superintendent-emeritus.

Dr. Poland belonged to the type of city superintendent which succeeds because of high scholarly attainments and unusual ability in organization. But unlike his type he was never coldly scientific in his methods or plans. His thoro grasp of educational philosophy and his strong appreciation of the relations and functions of the educational machinery, were saturated with a kindliness, human sympathy and tact that invariably won what he set out to accomplish. He was thoroly democratic in his relations with the teachers and school patrons and exceedingly aggressive in searching out and adopting new studies and improved teaching methods. To him belongs a large portion of the credit for the wide reputation which the Newark schools have enjoyed during the past ten years. His loss will be keenly felt and his place will not be readily filled.

DEFECTIVE SUPERVISION.

Schools in small cities and in rural districts suffer from a lack of supervision or rather from a defective form of supervision that is very accurately described by an Ohio parent in the Columbus Dispatch. Writing from Washington Courthouse, this "villager" says:

"His help to the teacher consists in hearing some of her classes perhaps once a year and others not at all. Then he proceeds to advise and criticize her, when she is the one that could offer the criticism and advice. Many a fine teacher has lost her position in Ohio within the last year or two on account of the adverse criticism of a superintendent whose knowledge of her work consists of hearing a few recitations in the entire year. A splendid way to judge a teacher."

It should be said in defense of the superintendent who does teachers an injustice because of insufficient acquaintance with their work, that he is overworked nine times out of ten. He fails in adequate supervision because he is tied down to office routine and must perform the duties of secretary, purchasing agent, stenographer, accountant, treasurer, and even errand boy, for the school board. No man can attend to the educational control of a school system of thirty or forty teachers and, at the same time, act as business agent of the school board. In fact the proper supervision of thirty teachers is a full man size job without any great amount of executive work in arranging courses of study, keeping educational records, etc.

School boards are practicing false economy when they expect their superintendents and supervising principals to do more than exercise executive control over the educational affairs of the schools. It is cheaper to employ a secretary and clerical help to handle business and routine work, than to let a high priced schoolman attend to duties which must be distasteful to him because they are beneath him.

THE SCARCITY OF TEACHERS.

The scarcity of teachers which is becoming more acute weekly is one of the most disturbing evidences of the growing difficulties which school boards must face as the war progresses. The shortage among men for supervisory offices and for teaching positions in manual training, mechanical drawing, science, etc., is due in small part to the selective draft and in greater part to the opportunities which industry affords. The shortage among women teachers is not so easily explained, altho some have dropped teaching to work in commercial lines and some have been promoted within the school systems to replace men.

If the enormous dropping off in the enrollment of normal schools, colleges and teacher-training schools is considered—and it varies from twenty to fifty per cent in various sections of the country—the seriousness of the teacher shortage will be better appreciated. Some drastic steps are necessary to restore the equilibrium and to keep up both the number and the standard of teachers. If this is not done it is inevitable that the schools will be seriously embarrassed and will fail when their service should be most effective.

For the present there may be partial relief in letting down the bars against married teachers, in combining classes so that none falls below an economical minimum and in taking such other administrative measures as reducing the substitute and cadet lists and waiving experience requirements.

As we see it the main relief can only come from increases in the salary schedule corresponding with the present increase in the cost of living. School boards will find this exceed-

ingly difficult especially in view of the higher cost of fuel and supplies. The inflexibility of school revenues and the limitations of the tax levies complicate the task.

It should be remembered, however, that the war period is a time of extraordinary effort and sacrifice. School boards should, therefore, cheerfully tackle the problem of higher salaries. They should realize that the better the teachers, the better the schools; and the better the schools so also the nation will be stronger to carry the burden of the war and meet the economic struggle after the cessation of hostilities.

A DEFECT IN TEXTBOOKS.

The war has brought out the fact that many textbooks in use in the elementary and high schools contain material which is decidedly offensive to our newly stimulated sense of patriotism and our reawakened adherence to the doctrine of democracy. The desirability of a number of widely used and valuable books, particularly in German literature, has been questioned because of selections and extracts which are un-American, and in the eyes of some, even treasonable.

The situation certainly should be remedied and school boards have it in their power to cause such revisions to be made that whatever is objectionable is removed.

Superintendents and school boards have been generally too lenient and careless in adopting textbooks and reference books which expound theories that are not commonly accepted and that offend the religious, racial or moral rights of distinct portions of school patrons. The disclosures made in recent months should arouse all concerned to their duty and textbooks should be scrutinized not only as pedagogical tools, but also as far-reaching means of influencing the opinions and principles of future American citizens.

THE SURROUNDINGS OF A SCHOOL.

The finest kind of a school building may be ruined so far as its architectural effect is concerned by its surroundings. We have frequently remarked school buildings which were models in design and highly creditable as examples of civic art, but which were almost totally ruined in effect by the unsavory surroundings in which they have been erected.

The Boston Traveler mentions, in a recent issue, such a situation when it writes:

"The Rochambeau school building in Dorchester, which, according to the latest reports, will be completed on Nov. 1, will never look complete until fire or building wreckers give it a more suitable setting than it now has on Gibson Street, near Neponset Avenue. On one side of its limited yard is what was formerly a little chapel, afterward used for laundry purposes, which a fire gutted and which since then has been in melancholy and unattractive disuse.

"On the other side are the yard and buildings of the public works department, where the animate and vehicular equipment of the sewer service for that part of the city have their headquarters. Nothing more hopelessly misfitting for the surroundings of an ornate brick school building could be imagined in these days when the setting, as well as the jewel, of educational and community welfare is looked upon as important."

School boards have a most serious moral as well as legal obligation to prevent school buildings from being located in neighborhoods where children are exposed to moral and health dangers resulting from the existence of saloons, gambling houses, undesirable theaters and dives.

No school board member who has the least sense of the responsibilities of his office would

ADDISON B. POLAND,
Late Superintendent of Schools,
Newark, N. J.

tolerate such a condition and the records of more than one school board chronicle the closing of a schoolhouse where the shifting conditions of city life have made it undesirable for children. Such major evils are far more readily overcome than the lesser nuisances which offend only the esthetic senses and which destroy the subtler and less commonly thought of influences of the school.

Still the minor nuisances are important and children are affected by seeing glaring billboards, rubbish littered free lots, dilapidated back porches, tumbledown barns and sheds. And the work of teachers and principals is affected too.

Where legal remedies exist, school boards owe it to the children to see that all nuisances are abated. Publicity is a remedy that is effective but not frequently thought of. Direct appeals to property owners are, perhaps, of least value unless they can be backed by some very real motive. Clean up campaigns in which the children themselves take a part have a value that is considered too lightly by those who have had no direct experience.

CO-OPERATION REQUESTED.

No single detail of school administration has been so generally neglected as that of janitor service. School authorities insist continually upon the importance of the janitor in the general scheme of school management, but practically no attention is given by them to determine standards of efficiency for janitors, or to evaluate the work which janitors do, either from the standpoint of salary or sanitation.

The National Association of School Accounting Officers is just undertaking a comprehensive study of janitor service in a manner that deserves the hearty support of all school boards and school board secretaries. The association intends to study every aspect of the administrative problems and to make its findings available for the use of all school boards. The association has appointed the following committee to undertake the study:

George F. Womrath, Business Superintendent of the Board of Education, Minneapolis, Minn.

Henry B. Rose, Secretary of School Committee, Providence, R. I.

Arthur Kinkade, Secretary-Business Manager of Board of Education, Decatur, Ill.

G. T. Hewlett, Secretary of Board of Education, New Haven, Conn.

A. L. Clinite, Secretary-Business Manager of Board of Education, Des Moines, Ia.

The committee is gathering at the present time copies of all rules, regulations, directions and instructions issued by school boards for controlling janitorial service. The committee will accept, with hearty thanks, any material which is sent by any school authority to Mr. George F. Womrath at Minneapolis.

When a Feller Needs a Friend.
—*Chicago Tribune.*

THE REASON FOR SCHOOLS.

The first school law enacted by the State of Illinois, January 15, 1825, is preceded by a preamble that states the underlying reasons for the existence of schools in a republic. These reasons are as applicable today as they were when first written:

"To enjoy our rights and liberties, we must understand them; their security and protection ought to be the first object of a free people; and it is a well-established fact that no nation has ever continued long in the enjoyment of civil and political freedom, which has not been both virtuous and enlightened; and believing that the advancement of literature always has been, and ever will be the means of developing more fully the rights of men, that the mind of every citizen in a republic, is the common property of society, and constitutes the basis of its strength and happiness; it is therefore considered the peculiar duty of a free government, like ours, to encourage and extend the improvement and cultivation of the intellectual energies of the whole."

Right figures check, guide and control any business, so they will assist in the administration of any school system. A suitable accounting system matched to the size and needs of a business throws to the surface significant facts. So in school work, right bookkeeping will give to school authorities details of cost which they should know and which the public has a right to demand. Business statements bring to the heads of concerns related details which must be had to insure success.

No matter what a business may be, the accounting system must be a watch on the significant factors of that business. Figures in a manufacturing plant show where the leaks are, where money is being made and where lost. In school administration this same check must be had by means of sound accounting. Still more, there must be a check on those greater losses in the time and progress of children, which are brought out by over-age and retardation records, by percentages of progress and failures, by school mortality.

School board members would have more sympathy for teachers, principals and the superintendent if they worked at the job for a time.

Some teachers' grasp of the matter they teach is mostly **smatter.**

The Ultimate Aim of Education

Reverend D. Mageean, B. A., B. D., B. C. L.

The subject of education has agitated the keenest minds in the past, and at the present day has even increased in importance. On certain aspects, whether theoretical or practical, our convictions are so strong, so well-grounded, and the issues so vast and far-reaching, that we cannot brook opposition. We are fired with a holy enthusiasm when we look back to the methods of the brutal Squeers, or of the little stupid Miss Peecher. But the schools of Dickens' novels are happily gone. The men with whose views we propose to deal are of a different caliber. Rousseau, Herbart, and Spencer had at least an honest desire to arrive at principles; Plato, Aristotle, St. Paul, St. Thomas Aquinas, Comenius, were men who allowed no obstacle to daunt their courage, no cloud to dim their vision, in their efforts after what was true and right. As we follow this struggle of principles and clash of intellects our diffidence soon gives place to the excitement of battle.

The blood more stirs
To rouse a lion than to start a hare.

It were no humility to confess our inability to deal with this question, as it is no pride to consider any such confession unnecessary. This high converse with the mighty dead, friendly or otherwise, may, however, give us a fuller, keener and more reasoned knowledge of the principles underlying all true education.

In deciding what is to be the aim of education we must take into account the two great determining factors, man and his environment. All possible solutions seem to be contained in these two answers: suit man to his environment, or adjust his environment to man. For the vocationalist that practical knowledge of men and affairs which will lead to success in life is the only end to be striven for; while the advocate of the culture aim says, educate man independently of his circumstances. The mountain must either come to Mohammed or Mohammed must go to the mountain. As the argument proceeds, however, we shall see that another division, better for historical reasons than this a priori bifurcation will naturally suggest itself.

The evolutionist, with that supreme disdain of details which is a characteristic trait of philosophers, says that the ultimate aim of education consists in the adjustment of a person to his environment. Education must prepare a man for life, and the aim of education is to provide man with the capacity and facility for enjoying a fuller life. To object that this theory is vague will scarcely perturb the philosophic calm of pure reason. Still, to the ordinary lay person, it is vague, and the average man may well ask, to which environment?—of his body, of his higher spiritual powers, or of both—for the environment of man is multiple. And if a definite answer is given, he may further ask why, on evolutionary principles, is this particular environment chosen in preference to some other? This will lead to some more ultimate form or standard showing that the proposed aim is not ultimate. Moreover, is it right to start with the statement that a man must always be the creature of his circumstances as a first principle? Can a man not change and modify his surroundings to some extent to suit his purposes? To affirm that a person should submit himself wholly to his surroundings is just as right, and certainly quite as wrong on philosophical grounds, as to say that he should pay no attention to his circumstances, should not pay homage to his Creator, obey his parents, and respect the rights of his fellows. And again, so far as this theory is true, is it not really a truism? For every creature, even a disembodied spirit, so far as it has any surroundings at all, must adapt itself partially to its environment; no creature can divest itself of its created nature.

The assertion of the biologist that education must fit a man to live a fuller life is neither illuminating nor elevating. If the evolutionist really wishes to justify himself against the charge of indefiniteness he will be forced to hold that a man should adjust himself to his physical or psychical environment or both. These aims have received, however, special names; they are held by some who do not accept the doctrine of evolution; and the objections urged against them will be all the more telling against the mere evolutionist.

The Vocational View.

In commercial centers, where men lead a strenuous life and where competition is high, this view is common. Parents often tell the head master that what they want for their boy is an education which will enable him to occupy a station in life, to advance, and, one day, to become independent. Ruskin refers to it thus: "An education which shall keep a good coat on my son's back; which shall enable him to ring with confidence the visitors' bell at double-belled doors; which shall result ultimately in the establishment of a double-belled door to his own house; in a word, which will lead to advancement in life: this we pray for on our bent knees, and this is all we pray for." The Americans, with their direct democratic incisiveness, have labelled this a "bread and butter aim." The bald essentials of the theory stated in this manner appeal neither to the reason nor the prudence of the thoughtful. The business man rejects it, because it narrows the young man's views and blinds him to possibilities; the strictly vocational training defeats its own ends and is responsible for some of our most tragical commercial failures. The philosopher gravely points out that man is intended for something higher in this life than a tailor's dummy or a milliner's model.

And yet the theory contains a modicum of truth. The vocational aim will often provide an element in the progress of the individual, and as a consequence will lead to social advancement. Education with this aim will incidentally give a power which, according to the trade or profession, will be intellectually low or high; it will give a power which, even when it is low intellectually, may be morally high, for it will provide the conditions which largely determine the external good and evil that befall man. Aristotle says that a man, in order to be happy must enjoy a certain amount of the external goods of fortune; and the "bread and butter aim" of education undertakes to provide the means of livelihood, without which man cannot, as a rule, attain happiness here below. In a word, the "bread and butter aim" is not itself the ultimate aim, but is a condition of the ultimate aim of education.

The Culture Aim.

At the opposite there are some who affirm that education must be pursued for the sake of knowledge only. This theory may take two forms: knowledge may be valuable because it is useful, or valuable because, by a strange oxymoron, it is useless. Viewed in the former light the theory has the same drawbacks as the vocational aim; for the same miserly and unprogressive spirit obsesses a person, whether he hoard up gold or facts of knowledge. Moreover, if this theory of mere intellectual training be pushed to its logical conclusion it will give us only human monstrosities. The person who has more intellectual power and acumen may be able to amass and correlate facts, to measure the surface and rind of things, never to get at the soul of art, of literature, and of men. Such an intellectual automaton has his prototype in Ariel, who, tho highly gifted intellectually, excites our passionate sense of pity when he shows his incapacity for human feeling: "Mine would, sir, were I human." In the life and sacrifice of Faust is to be found the classical example of the failure of mere knowledge to satisfy the higher aspirations of man.

If we turn now to the narrower meaning of the culture aim, which measures the value of knowledge by purely conventional standards, we find that the manly common sense of our pupils condemns it. Formerly it found its ablest defender in locks. This knowledge "of the things that a gentleman ought to know" is supposed, perhaps unfairly, to be a characteristic now of some of the higher schools for young ladies. Schoolboys, those towers of wisdom, unconsciously show the disapproval of the race for such an educational aim when they exclaim: "That is what a girl would do, that is how a girl would say it."

And yet there is truth in both these aims; for life is brightened by the cultured contact of mind with mind, existence is made enjoyable by the amenities of conduct in society, and by the power in oneself to use one's leisure judiciously and rationally.

The Development Aim.

The true end of education, then, is not the training of the body nor of the intellectual faculties for the sake of the body; nor is it the training of the intellectual faculties for their own sake. Both these theories are inadequate and we must, according to a third school, find the truth in the development of all the powers and faculties of man. "It matters little to me," says Rousseau, "whether my pupil is intended for the army, the Church, or the law. Before his parents chose a calling for him nature called him to be a man. Life is the trade I would teach him. When he leaves me, I grant you, he will be neither a magistrate, a soldier, nor a priest; he will be a man." Theoretically, this theory fails in definiteness; practically, it is based on an ignorance of the laws of relative values. If it means the maximal development of all the powers in man, the aim is impossible; the achievement of an Andrea del Sarto is an ideal too high even for a fraction of the human race; very few, even in an era of the world's history can become universal geniuses. If it means the harmonious development of the capacities of man, the theory is condemned in its product; such a jack-of-all-trades carries his own condemnation; in the words of Falstaff he is and will remain "a very Jack." Practically, too, the theory is based on wrong perspective; considering the original perversity of human nature, and the present state of society, one cannot but conclude that the development of all the powers with which nature has endowed man would in some instances be useless and in many ways hurtful.

Whether the theory, then, means the maximal or the harmonious development of man's capacities, it cannot be maintained. Yet amidst this heap of error we can find two grains of truth: man's powers must be developed, so that they

(Continued on Page 42)

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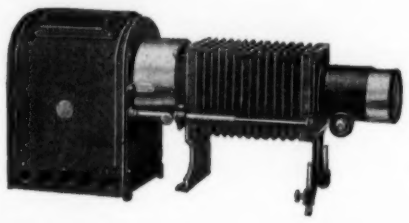

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(*Continued from Page 40*)

will not hinder the attainment of his last end; and they must be developed to such an extent that they will give him positive help in working out his destiny in this world.

The Social-Efficiency Aim.

These three theories are untrue, because inadequate; whether they refer to his body alone, or to his mind alone, or to the development both of mind and body, they regard man only as an individual and not as a member of society. Hence we have still a fourth school, according to whom the production of the socially-efficient man is the ultimate aim of education. Education must subserve the interests of society and of the State, because man is made for the State. The essence of morality is social; for an act is morally good only when we subdue our individual inclinations and cravings and subject them to the common good. "The greatest happiness of the greater number" must be our objective. The keynote of morality is self-denial; this means "the denial of self to others—the true essence of the social spirit."

Philosophers, being as a class humorous, have agreed to call this utilitarianism. Against this theory there are three objections. If the keynote of morality is self-denial, how does it come to pass that some forms of self-denial are, according to utilitarians, wrong and immoral; evidently there is some other standard by which to judge the morality of acts. Again, the theory asserts too much when it is affirmed that man is in all things subordinate to society; for since man is a person he has rights that are indefeasible. Nor does it follow, because a system of education is State-supported, that the civil power has an exclusive right to determine the course of education and subordinate it to its own interests. The State can buy in what market it chooses, but it cannot purchase rights that are inalienable. It may, indeed, demand a minimum of efficiency, and enforce its demand by penalties. But duties between individuals and society are reciprocal, and frequently individuals have rights against the society in which they live. Lastly, the theory asserts too little, for man has duties beyond those which he owes to society; he has obligations to God and, in a wide sense of the term to himself. As the ultimate aim of education, therefore, social-efficiency is both too narrow and too wide.

We must not, however, be blind to the large element of truth in this view. Education must develop in a person his sense of social, civic, and patriotic duties to his family, to his city, and to his fatherland—even to an empire, if he belongs to it. Sometimes also the good of the community assumes precedence of his private ends, and so far the neglect of the corresponding duties will be more serious and detrimental. Hence, in some ways, this view expresses a higher and wider truth than the preceding ones.

Summary.

The various views examined with regard to the aim of education are inadequate; some take account of man's body only; some of his mind only; some of his body and mind; and some of his social efficiency. Each by itself is inadequate, and therefore untrue. Perhaps in the aggregate we shall find the truth? No; because they do not consider man in all his essential relations: a person has duties beyond those which he owes to himself and to society—he has duties to God.

Shall we then, conclude that the true aim of education is to teach the creature his relations to the Creator? This would mean rushing to the opposite fault; Scylla is no less dangerous than Charybdis. To teach man his duties to God is the province of religion, and the educationist must not invade its sacred precincts. It is not by attempting to widen its scope that we can hope to find the true aim of education.

Education, therefore, cannot usurp the domain of religion, which deals with God and the relations of man to his Maker; nor can it invade the territory of social and political economy, which deal with society and the State; on the other hand, it must not confine itself to the development of the body or of the intellectual powers for the body's sake; to achieve the maximal development of all the powers, physical and psychical, is impossible, and to attempt the harmonious development of them is unwise and often hurtful.

Taking into consideration these conclusions, in their negative and positive aspects, some modern ethical writers of the English school affirm that perfection, being the ultimate end of man here as a rational and social being, is also the ultimate aim of education. This, it is maintained, will cover all that is true, and exclude all that is false in the theories hitherto examined. Nor can there be a shadow of doubt that education, properly viewed, will perfect the individual and the race; but is the term "perfection" not somewhat vague? What is perfection? How can I attain it? Who will solve these questions? I am liable to error, and others are not infallible. Nor is the answer quite fair. We want to find the ultimate aim of education; we are not seeking the ultimate end of life. To say that perfection is the aim of education is

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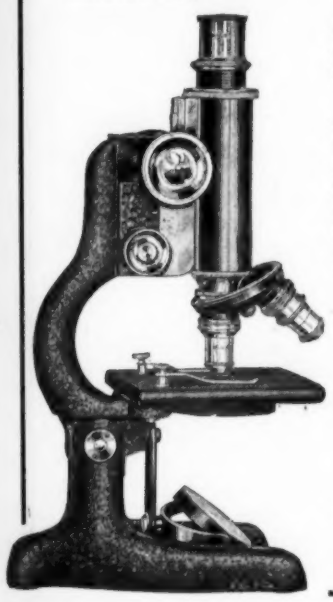

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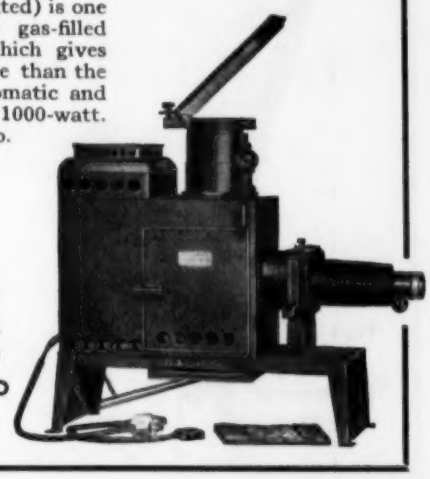

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true; but in the same sense it is equally the end of everything else—of fighting, of advertising, of cobbling, of philosophizing. It is quite right to affirm that education must conform negatively and positively to the ultimate end of man; but the same is true of every art and science. If the question is proper to the science of education, as we think it should be, it means, if we may use a harsh phrase familiar to us by long theological training, what is the aim of education qua education?

The True Aim of Education.

Thru all this "big, booming, buzzing confusion," to borrow a neat phrase used by Professor James, we may see traces of the truth appearing. To the hierarchy of duties and relations consequent upon the nature and position of man, there is a corresponding hierarchy of sciences. Education as a science is higher than the lower, and lower than the higher. The matter may be put thus: man is a living being, having a body and soul capable of knowing, loving, and striving, bearing certain relations and having certain duties to himself, to society, and to his Creator. Of these some are more important to him, even as a natural man, than others. Now, the process of education—the drawing out, the making active what is latent in the capacity of a person, limited, of course, by the end in view—must touch all these relations, the highest and lowest. We can decide the position which the science of education holds by keeping in mind the general philosophical principle with regard to the means, which is itself a subordinate end. Education must deal with the lower relations in two ways, negatively and positively, in such a manner that these will not hinder the attainment of its own end; and, secondly, so that these lower duties will lead to its own end positively. And so far as it touches upon the higher relations and duties of man, education must not impede the attainment of higher aim, but must positively conduce to them. An example will make this principle clear. The aim of education must include the vocational aim, insofar as a proper calling is necessary, that a person may be able to realize in himself the proper aim of education; and, on the other hand, the aim of education must not be opposed to, but must be in positive harmony with, religion. Theoretically this is the standing of the science of education.

In practice the matter reduces itself to this: a parent may wish his son to be strong, well-informed, clever, moral, and religious, with cultured tastes and feelings; but he wants more than this. The young man may have a sound physique and yet be a blockhead; he may be good simply because he has not the initiative or the opportunity to be bad; he may become a cultured sensualist and libertine or a sheer impossible idealist—in real life as well as in the realm of literature we have our Hamlets and Sydney Cartons. Health, learning, uprightness and culture and the rest of them are good, and are requirements in a sound education. But they do not go deep enough. What we want is something more radical, some sterling quality which lies at the root of all these and ensures their permanence and their influence; something that constitutes the core of personality itself; something that lies at the root of man's activities, of all his thoughts and of all his aspirations.

ELLIS U. GRAFF,
Superintendent of Schools-Elect,
Indianapolis, Ind.

So much we derive from a synthesis of the various theories advanced.

A true education is concerned with the whole being; not with body alone, nor with soul alone; still less with such as intellect. It is equally concerned with the whole width of life; not with utilitarian occupations alone, nor with intellectual or aesthetic pursuits or even with morality of conduct alone. It recognizes that man is both an individual responsible for his life and a constituent in a community in relation to which he has both rights and obligations, and that the latter of these is as essential a part of his nature as the former. It takes account of the real nature of life or experience . . . . that it is not mechanical but vital and spiritual. . . . . The task of the thinker on education is to seek the elements of an ideal in which the

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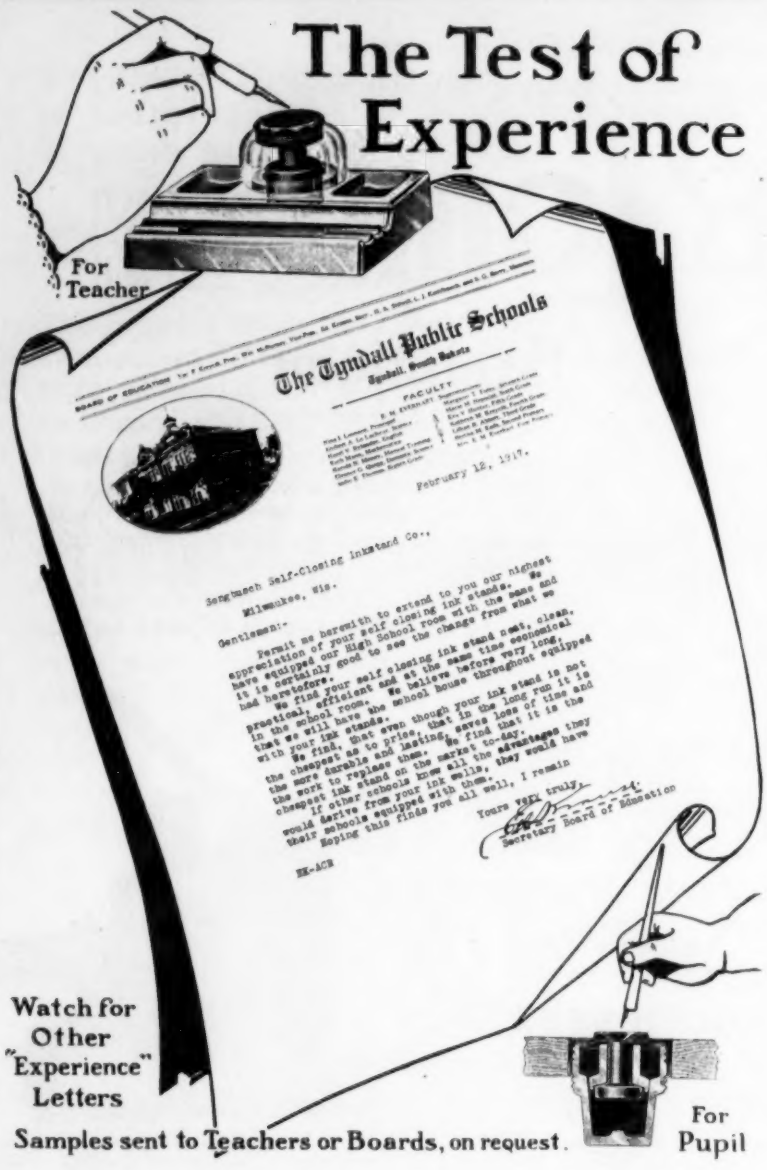
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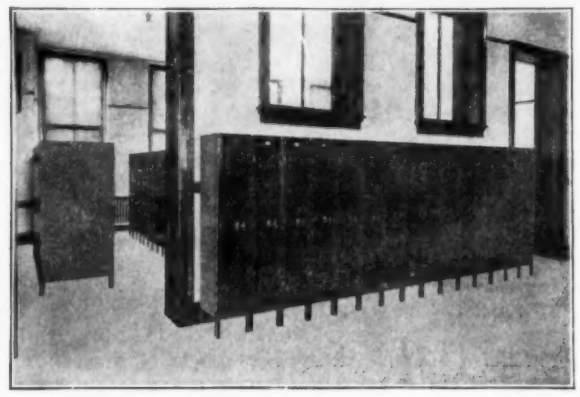

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needs and aspirations of human nature will find satisfaction and fruition.

From this analysis it appears that the ultimate aim of education is the development of full and effective personality, or character.

Here, then, is that radical element—character—which lies behind and beyond knowledge, moral goodness, culture and efficiency and which gives a harmony to the whole man, clarifying his aims and strengthening his resolves. It is the essential element in personality, and contains the nucleus of principles which determine the general trend of life, around which all smaller purposes and ideals are intelligently grouped. It is found in the man who has got a strong intellectual grasp of principles; which principles are accepted as a standard of conduct; and which, moreover, owing to the habits in the will, are assiduously applied in practice. Character, in this sense, stands neither for reputation nor moral rectitude as we mean when we speak of injuring a man's "character." It is of a complex nature, having two aspects, an intellectual and practical, energizing in the mind as a principle and in the will as a habit. It distinguishes the unreliable man from the man of principle; the consistent man from the creature of impulse; the weakling from the masterful. The full analysis of it must be reserved for another occasion. For the present it is sufficient to refer to the pithy definitions sometimes given to it: "life dominated by principles"; herein its intellectual aspect is emphasized. Elsewhere it is defined as a "completely fashioned will" and herein its practical aspect is made prominent. A man of character is a soldier of the ideal: he knows what he is fighting for and he fights for it.

Nor is this view of the aim of education unsupported by high authority. It is honored in the name of Arnold of Rugby. For the educationist it is a noble aim. "Character," says a modern writer, "is on the whole the most important element in life from the point of view of ethics." A witty, if eccentric, Irishman laments its absence from his own early days: "My education was interrupted by my schooling."

The man who has acquired this character by close thinking and strenuous endeavor will approach more or less to the ideal of the magnanimous man, as described by Aristotle; and, further, if he is a genuine Catholic, he will have, besides the natural virtues the supernatural moral virtues, and the theological virtues of faith, hope and charity. He will be deft of hand, keen and retentive of mind, consistent in throwing himself heart and soul into all that he undertakes, strong under difficulties, and ready and eager to obey the call of duty. He will be steadfast and high in aim, wide and tolerant in outlook, beneficent in intention, deriving his inspiration from a living faith in a Personal and all-embracing Wisdom, and Goodness, and Love.

SHOULD THE TEACHER BE PENALIZED FOR ILLNESS?

(*Continued from Page 22*)

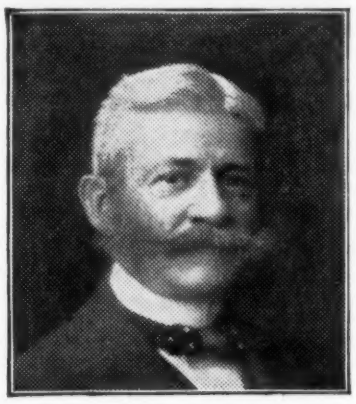
it, for it is nearly always the poorest paying districts that are quickest to deduct, there is no mercy or even justice shown. Many of our colleges give a Sabbatical year with half pay, some of our best schools give leave of absence on part salary, but the underpaid girl is held down to the utmost farthing.

There is much to be said in favor of *preventive* rest. One of the finest primary teachers in our state has never been blessed with robust health, and she spends herself so lavishly, each day, that she makes serious drain on her strength. Several times a year, her superintendent says, "Miss Smith, you had better take a day or two off. I'll put the substitute into your room on Friday, that will give you three days at a stretch." And Miss Smith is honest enough to spend the extra time in *resting*, not in visiting or embroidery. In this way a breakdown is forestalled and the school is able to hold this superb teacher with very little substitute work.

In many instances these deductions from teachers' salaries come under routine business and are given no thought by trustees. They are busy men and depend on the superintendent to bring detail matters to their attention. A new supervisor recently explained the situation to his board and they were mortified to discover the niggardly way in which they were treating their teachers. One member said, "Is it possible that we have been doing this for years! What do you suppose those women think of us! Why in our office we wouldn't treat the messenger boy that way. We have lately carried a clerk for fifteen months, while he was regaining his health in the mountains."

A trustee who is in a business house said, "We employ a number of girls and we make it a point to give them occasional time off. I say, 'Well, Miss Jones, its about time to buy Easter bonnets, isn't it? Suppose you take Friday afternoon off for shopping.' Why that girl will work her head off for us."

An official said to me lately, "When I see a rush of work coming I try to give every girl a day or two off. She can arrange her own affairs



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and get a little rest; then when the pressure of work comes she accomplishes more, with less strain, and comes out all right. She realizes that we try to be considerate of her, and even if one ignores the human side, it pays in dollars and cents."

A man who has built up a large department store in a city near New York gives all his sales-people full pay during illness and *pays their doctor bills.* And he belongs to a race that is, often unjustly, considered grasping. He counts it good humanity and also good business.

The point may be made that these are private enterprises, and teachers are paid with public funds. So is our United States Commissioner of Education, so are state and local superintendents. Besides, whatever is good business in a private enterprise is good business with public money. Consideration of the teacher will result in "the best good of the school."

"But teachers will abuse the confidence of the trustees." In proportion to their numbers I frankly believe that fewer teachers will be guilty than superintendents. And suppose an occasional one does play unfair? To punish all for the offense of one is unjust, and unpedagogical. We do not allow that in the classroom. If the superintendent is on his job, he will discover the slacker and can be rid of her at the end of the year.

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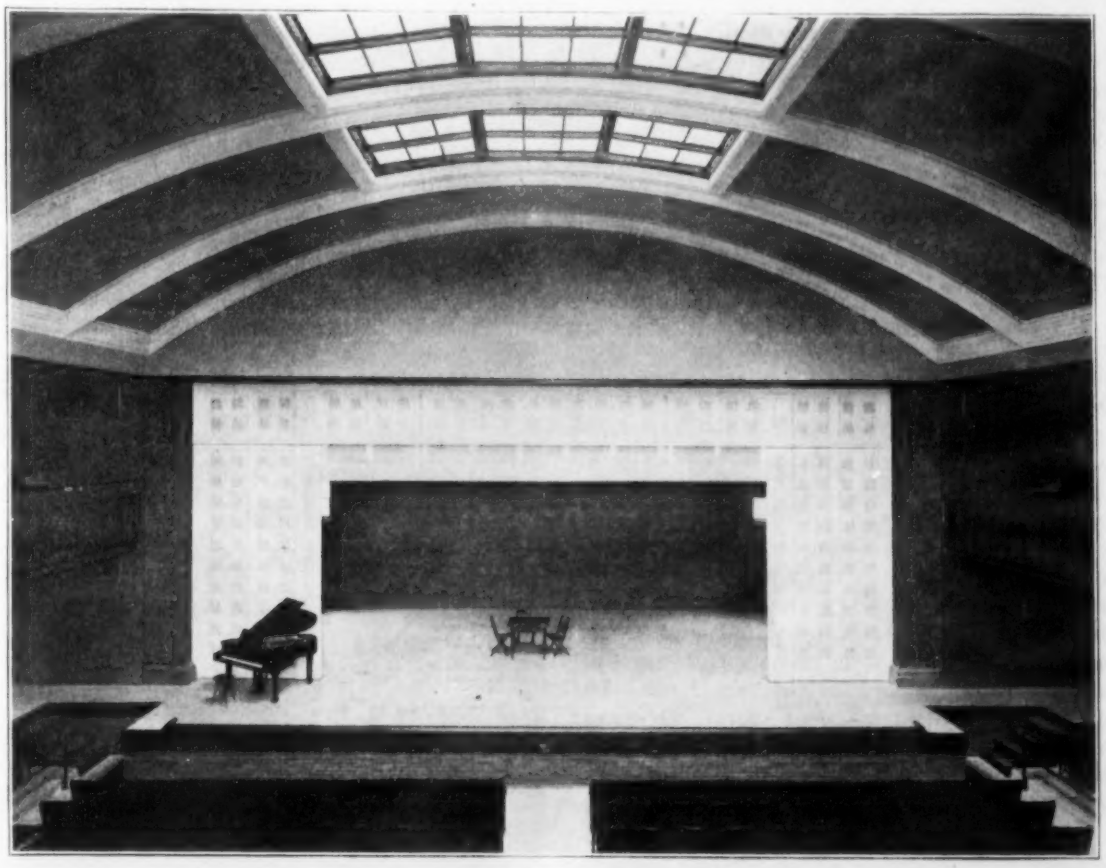

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(See pages 31-36.)

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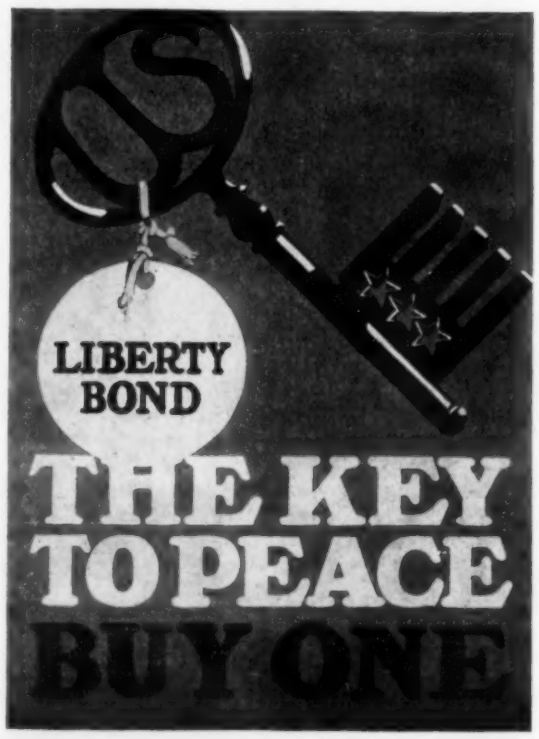
THE LEGAL RIGHTS AND PRIVILEGES OF PUPILS.

(*Concluded from Page 24*)

in a perfectly lawful occupation he may have conducted himself so negligently as to make himself liable for damages resulting from such negligence. Here, however, comes in the marked difference between the tests of negligence as applied to the act of an adult and the same act when committed by a child. The rule is that a child is only required to exercise that degree of care which the great mass of children of the same age ordinarily exercise under the same circumstances, taking into account the experience, capacity, and understanding of the child. This was the measure of the defendant's duty —no greater and no less.

"Calling back to the mind for a moment the old school yard at recess, its shouts, its laughter, and its confusion, the sudden dash of boys here and there, the game of marbles in one place, hopscotch in another, and crack the whip in another, its boys darting here and there playing tag or prison goal and intent on catching or escaping from their fellows, can any man truthfully say as he recalls the scene that the 10-year-old defendant in the present case was doing anything more or less than healthy boys of his age have done from time immemorial and will continue to do as long as the race retains its activity and love of innocent sport? It seems to us that this question can receive but one answer, and that in the negative" (Ann. Cas. 1912 C. 176).

If an infant is engaged in doing an unlawful act, such as committing an assault and battery, the fact that an injury is inflicted accidentally upon a third party is no defense (Note, 14 L. R. A. 227). Thus, in an Indiana case, it appears that the defendant, between thirteen and fourteen years of age, was playing in the street with some boys and in sport threw a piece of mortar at another boy, first telling him to run or he would hit him. The mortar hit a third boy in the eye destroying the sight. In holding the defendant liable the court said: "There is no question of contributory negligence, or 'mutual consent to engage in play of a dangerous character,' in this case. The assault was rudely, purposely and wilfully committed. The appellant notified the Haffner boy of his intention to commit the act. He did not intend to inflict the injury, but he intended to do the wrongful act from which the injury resulted, and he is answerable for that result" (26 Am. Rep. 81).



In many cases, however, it is not necessary to find that the act by which injury was inflicted accidentally upon a third person was illegal in itself, in order to hold the actor, because the evidence may warrant the inference that the act was negligently performed. Thus, in an early New York case, it appears that a boy 12 years of age threatened to shoot with an arrow one of his schoolfellows, who ran into the schoolhouse and hid behind a fire board in front of the fireplace. The defendant followed to the door and saying, "See me shoot that basket," discharged the arrow at a basket on the teacher's desk near the fireplace. At that moment the plaintiff raised his head above the fire board and the arrow struck him, putting out one of his eyes. In sustaining a verdict for the plaintiff, the court said: "It is not necessary for us to say whether the judge erred or not in his remark to the jury that, under the circumstances of the case, the act of the defendant in shooting the arrow in the schoolroom, where there were a number of scholars, was not lawful; for if the act in itself was lawful and there was not proper care to guard against consequences injurious to others, the actor must be held responsible for such consequences" (3 Wend.—N. Y.—391).

There is a great difference between the school master who is seeking a place for himself and the one who has made a place for himself.

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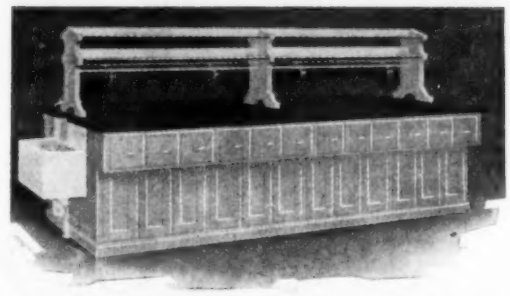

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Among Boards of Education

COAL ECONOMY URGED.

The United States Chamber of Commerce, cooperating with the Council of National Defense, has made five suggestions concerning fuel economy that are especially applicable to schools. The chamber urges that all large users of coal

1. Inquire into the methods employed by their firemen and consider their methods in relation to those suggested by the Bureau of Mines.
2. Learn what plants in the community secure the best results from coal.
3. Endeavor to have the wasteful users of coal profit by the best experience of the locality.
4. Improve all local methods by consultation with the U. S. Bureau of Mines and study of the stoking methods recommended by the Bureau.
5. Buy coal as near home as possible.

A Committee of the Chamber of Commerce declares that firms which used more coal than needed in the past felt that they had caused no loss except to their own bank accounts. At the present time coal is a sinew of war and anyone who unnecessarily reduces the country's available stock of coal may cripple the nation's energy in the great conflict. In the past deficiencies in the coal supply could be remedied by the opening of new mines and heavier withdrawals from the great supply underground, so that even the most extravagant users could be supplied without interfering with other industries.

At the present time there is a limit to the amount of coal which should be mined. In the great concentration of national energy toward the prosecution of the war, men are not available to open new mines to meet extravagant needs and transportation facilities are burdened to the limit of capacity. These and other factors establish definitely a limit to the amount of coal which should be made available for use during the war.

Another important phase of the situation comes from the control of coal prices by the government. An effect of such regulation may be reduction in output. It is largely to be expected that the fixing of prices can be carried on without controversies with producers interrupting operations and without repressing the adventurous spirit necessary to increase output.

"Opposed to these limitations on the available supply of coal is the greatest demand for coal ever known," the committee continues. "The railroads are requiring more coal than ever before. The war and its stimulation upon industry has called upon our factories for an output beyond all previous peak loads. Our allies depend upon us for coal. Neutral countries depend upon us for coal. Good use can be made of all available coal.

"No thinking man can fail to realize the obligation which this situation imposes upon the user of coal. On a vast scale the situation is similar to that where people are in an open boat at sea with a limited supply of food. The man who wastes coal today is an enemy of mankind."

Under these circumstances, all large users of coal are called upon to give thought to avoiding the waste of coal, so that coal requirements may be reduced to a minimum. A vigorous effort should be made to cause in all power plants the adoption of such stoking methods as will produce power without the waste of coal. The present time is one to undertake a concerted effort to improve power house practice so that an available supply of coal may be distributed to meet all requirements and that no one may suffer because someone has been wastefully extravagant in the use of coal.

The Bureau of Mines has made a study for years of stoking methods. Elaborate investigations and experiments have been conducted and the results of what has been done are available to every user of coal. The Director of the Bureau of Mines desires that users of coal call upon this division of the government for advice and assistance.

In this connection it may be said that the Bureau of Mines has analyzed samples of coal from all sections of the United States and is already prepared to give information regarding the best uses to be made of different kinds and grades of coal. Detailed experiments and investigations enable the Bureau to give effective assistance in bringing about improved stoking methods. Their tests and the experience of users of coal demonstrates that an amazing saving may be had without change of coal or equipment by merely controlling the fireman and his method of putting coal under the boiler.

The chamber urges that local business and engineering societies conduct a campaign of education in the use of coal. It cites the example of the University of Tennessee which has sent out experts to visit power plants in Tennessee and to suggest methods for saving in coal consumption. While the Chamber of Commerce addresses itself only to business men, the present high cost of fuel and the desire of the schools to co-operate in the national emergency will readily suggest that boards of education undertake a campaign in their respective communities for fuel economy.

AMONG BOARDS OF EDUCATION.

Mr. W. Peine, business manager of the schools at Houston, Tex., in his annual report to the board, covers extensively the financial situation of the schools and gives a complete resume of the expenditures and operating expenses of the buildings. In the report, Mr. Peine commends the janitorial service, recommends the erection of a repair shop, comments on the new fire escape law and urges the establishment of a special school tax.

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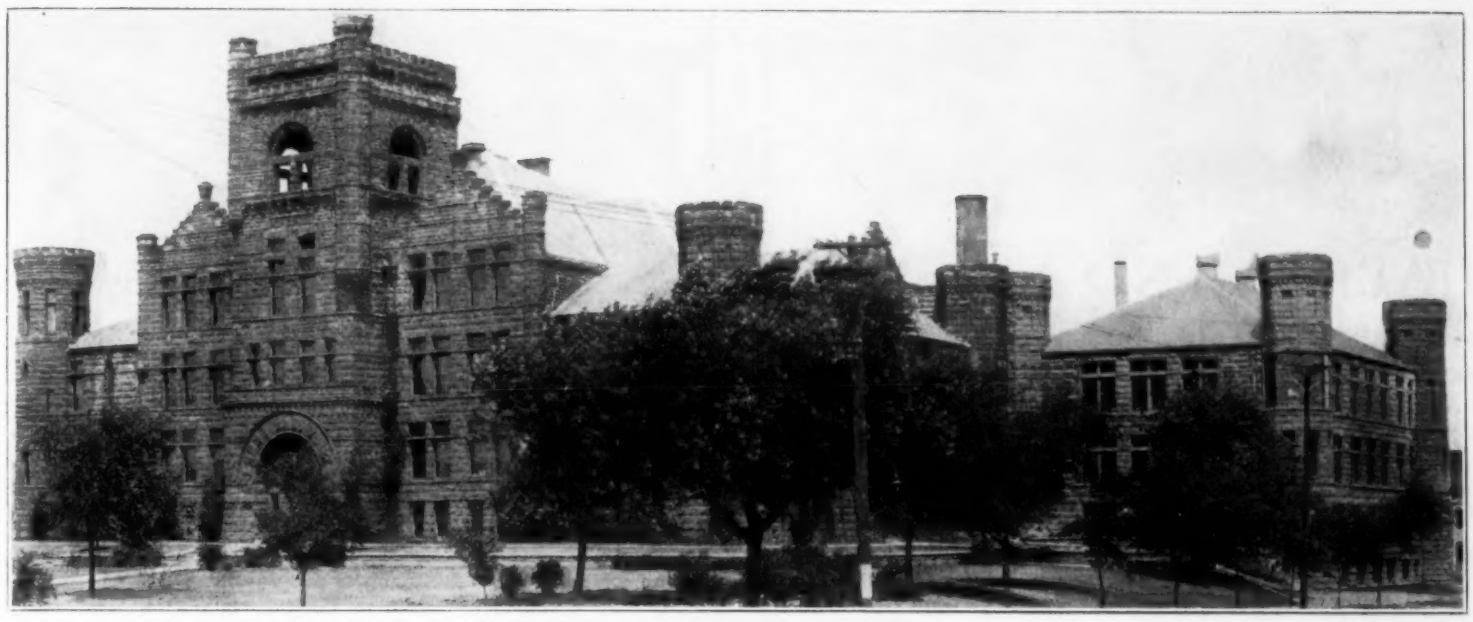

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The report shows that there are in Houston 44 school buildings and grounds valued at $2,738,308. In operating the school system 647 persons are employed, including the superintendent, the secretary, assistant secretary, business representative, storekeeper, assistant storekeeper and librarian.

The scholastic population was 26,951, white and colored, and the amount expended during the year was $587,994. The amount expended on night schools was $16,004. The cost of education per capita was reduced from $29.02 last year to $27.05 the past year.

The report calls attention to the need of a repair department or shops in which all carpentry work may be done. At present this work is done in the basement of one of the high schools. It is planned to build on the unit idea with ground sufficient for the growth of the system for years to come. The first building should care for the needs of the present in the way of equipment, machinery and storage space.

Mr. Peine calls attention to the fact that the new fire escape law for schools affects 27 of the Houston school buildings, five of which are now meeting the requirements of the law. He estimates that a minimum sum of $25,000 will be needed to put the buildings in proper condition to comply with the law and recommends immediate action of the board to raise the money for the work and to erect such fire escapes as will meet the requirements.

Mr. Peine's report concludes with an urgent appeal for more funds to carry on the work of the schools. He says:

"Under present charter requirements it is the duty of the board to submit once each year a carefully figured estimate of the needs of the school system to the mayor and city commissioners for approval.

"This has been done from year to year, but those calculations have not been fully met. In fact, such deductions have been made from these estimates by the city government that at times the board has been compelled to exceed their allotment of funds."

Rochelle, Ill. The school term in both grades and community high schools has been increased to ten school months. All teachers' salaries have been increased, in grades, $25-50, in high school, $50-$75, supervisors, $75. Mr. Herman Wimmer remains as superintendent.

Atlanta, Ga. The city council has reversed a former decision and created the position of business manager. A salary of $2,000 a year is provided.

Seattle, Wash. Upon the recommendation of Supt. Frank B. Cooper, the board has adopted a longer school day for the high schools. Two sessions daily will be held, one beginning at 8:00 A. M. and closing at 3:10 P. M., and the other beginning at 8:50 A. M. and closing at 4:10 P. M. The plan provides for six periods per day, offers a more flexible program and affords opportunity for supervised study. Students who desire to work outside of school hours are able to arrange their work very satisfactorily.

San Antonio, Tex. The board has adopted a rule providing for the dismissal of alien enemies in the employ of the school system.

Maricopa, Cal. The board has purchased two automobile trucks for hauling the children of the Paleto district to school. The district includes three schools which serve the patrons of a number of townships, where the children must be transported to the buildings. The new arrangement eliminates the practice of hiring private conveyances.

Louisville, Ky. Mr. J. Earl Henry, architect of the board of education, has been elected assistant business manager. In his new capacity, Mr. Henry will be business executive of the schools and will perform all the duties of Mr. Samuel D. Jones, business manager, who is in training as an officer at Fort Benjamin Harrison. Mr. Henry will continue to look after the architectural and engineering work of the schools.

San Francisco, Cal. The board of education which is a city department has notified the board of supervisors that it will make all requisitions for school repairs directly to the board of public works. It is held that the board of education has complete control over the expenditure of its funds so that the approval of the supervisors is unnecessary.

The Chicago Board of Education has received refusals from coal contractors to reduce prices set during August. The contractors declared that in each case their figures are below the figures set by President Wilson.

Mr. John E. Cleland, who resigned in April as business director of the Indianapolis schools, retired from active service on September first. Mr. George C. Hitt who was elected to succeed Mr. Cleland, has taken charge of the work.

Supt. F. B. Dyer of Boston, Mass., has suggested that coal be saved this winter not only as a matter of economy but in the interests of health. It is the opinion of Supt. Dyer that fresh air and cool temperatures are favorable to study, as well as healthful.

Grand Rapids, Mich. Eighteen school buildings are without fuel because of a shortage of one thousand tons of coal. Formerly the board bought a pocahontas run-of-mine coal but since the new prices of the government have gone into effect there is no more to be had. It is probable the schools will be compelled to use smoke-producing fuel.

Coal for the Indianapolis schools will cost at least $30,000 more than a year ago. This is an increase of 75 per cent and means that fuel for the year will cost more than $75,000. The average price of screened lump, mine run and nut and slack coal, all Indiana mined, is $4.03, as compared with $2.37 a year ago.

The Iowa State Board of Education has discontinued its former indefinite plan for school extension and has provided for the operation of a five-year building and improvement program. Mr. Francis A. Robinson, who has been appointed landscape architect, has begun plans for a number of institutions including a school for the blind. Tentative plans for the development of the State University property contemplate the utilization of both banks of the Iowa River with buildings facing it from each side, and the rear looking toward the city of Des Moines.

The cost of operating the school system of Riverside, Cal., during the past year was $251,020. Of this amount, $145,491 were spent for elementary schools and $90,310 for high schools.

Jackson, Mich. The budget for school expenditures for the coming year has been fixed at $302,000. The amount is an increase of $67,000 over that of last year.

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SCHOOL LAW

RECENT DECISIONS.

The public schools are under the control of the Legislature, and the respective school boards have no other powers than those which the statutes confer upon them.—Pronovost v. Brunette, 162 N. W. 300, N. D.

Building Contracts.

Where school trustees did not demand a bond from a contractor in accordance with the statute, and the bond taken was not good as a common-law obligation they cannot defeat their individual liability for failure to take a bond in accordance with the statute on the ground that the drafting and wording of such bond was a judicial act.—C. A. Burton Machinery Co. v. Ruth, 194 S. W. 526, Mo. App.

Board of education is not necessary party defendant to suit against members of board to hold them individually liable for making contracts or incurring obligations on behalf of board in violation of the West Virginia School Code, c. 45, ¶ 25 (sec. 2062).—Doss v. O'Toole, 92 S. E. 139, W. Va.

To successfully assert the individual liability of members of a board of education for contract of board for expenditure of money in excess of available funds, a party must establish by clear proof that funds were not available to meet the contract when entered into.—Doss v. O'Toole, 92 S. E. 139, W. Va.

One performing work or furnishing material for a board of education without any authority therefrom cannot hold members thereof personally liable under the West Virginia Code, c. 45, ¶ 25 (sec. 2062), by reason of board's subsequent order for payment, where there is not a sufficient fund available for payment.—Doss v. O'Toole, 92 S. E. 139, W. Va.

Where contractor induces directors of school district to issue a warrant by false representations as to payment for material used under a contract with district, warrant may be rescinded, and contractor required to surrender it for cancellation.—Crane & Ordway Co. v. Sykeston School Dist. No. 11, 162 N. W. 413, N. D.

Right of rescission, where consent to the issuance of a school district warrant is induced by fraud or false representations, does not depend upon damage to the party imposed upon.—Crane & Ordway Co. v. Sykeston School Dist. No. 11, 162 N. W. 413, N. D.

School District and School Property.

The relocation of a schoolhouse in a school district containing a town or village qualified to vote at school district elections is governed by Sess. Laws 1913, c. 219, art. 3, ¶¶ 13, 15.—School Dist. No. 19 v. Parrish, 164, P. 466, Okla.

The legislative policy in North Dakota is that the public schools in the common school districts of the state shall be maintained in buildings which are owned by the public.—Pronovost v. Brunette, 162 N. W. 300, N. D.

Under North Dakota Comp. Laws 1913, ¶¶ 1174, 1184, et seq., where common school district owns school building adequate to its needs, and there are not nine children residing 2½ miles therefrom for whom additional accommodation is needed, the district has no authority to lease another building and remove the school thereto.—Pronovost v. Brunette, 162 N. W. 300, N. D.

Where a board of education enters into contract obligation, which, together with its other obligations, does not exceed funds then available, the contract will not be rendered invalid if board subsequently uses available funds for other purposes, and it may be required to provide other funds to meet contract.—Doss v. O'Toole, 92 S. E. 139, W. Va.

Elections and Bonds.

While Arizona Civ. Code 1913, ¶¶ 2736, 2740, regulating elections for school bond issues, must be substantially followed, mere irregularities in conducting the election or in the notice, returns, or canvass of the votes, will not invalidate an election.—Howard v. Luke, 164 P. 439, Ariz.

In contesting the validity of a school bond election held by a school district, the school district, being the only party vitally interested, is a necessary party to the action.—Howard v. Luke, 164 P. 439, Ariz.

Under Arizona Civ. Code 1913, ¶ 2740, providing that the county board of supervisors shall issue school bonds if it appears that such issue was approved at an election, the supervisors have only ministerial duties to perform and are not required to defend suits testing the legality of school bond elections.—Howard v. Luke, 164, P. 439, Ariz.

The validity of a school bond election held by a school district cannot be collaterally attacked in an action to enjoin the county board of supervisors from issuing bonds pursuant to such election.—Howard v. Luke, 164, P. 439, Ariz.

School Taxes.

Where four of ten school directors were not notified of special meeting, and only four of the six present voted for resolution calling special election to levy a school tax, the proceedings were invalid, and special election and tax were void, notwithstanding board's mandatory duty to call election under Act. No. 256 of 1910, ¶ 2, on proper petition.—Pryor v. Board of School Directors of Claiborne Parish, 74 So. 1002, La.

In action by a county board of education to compel a fiscal court to levy school taxes pursuant to Ky. St. ¶ 4426a, subsec. 9, the fiscal court cannot question the board's determination regarding the necessity of erecting new schoolhouses, etc., where no fraud or abuse of discretion is shown.—Floyd County Fiscal Court v. Floyd County Board of Education, 194 S. W. 561, Ky.

Under Ky. St. ¶ 4426a, subsec. 9, requiring fiscal courts to levy taxes for school purposes, any surplus retained by board of education from previous year should be applied to school purposes before determining amount to be raised by taxation.—Floyd County Fiscal Court v. Floyd County Board of Education, 194 S. W, 561, Ky.

In view of Vernon's Sayles' Ann. Civ. St. 1914, art. 2857, a vote of the taxpayers of an enlarged school district authorizing the levy of a tax for

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the maintenance and support of the schools does not authorize a levy for interest and sinking fund on bonds issued by one of the included districts.—Love v. Rockwall Independent School Dist., 194 S. W. 659, Tex. Civ. App.

Where petition shows fraud and collusion by school directors with contractor erecting school building by which defective work was to be accepted and contractor paid in full, it was sufficient to establish the right of taxpayer to enjoin acceptance of building.—Ford v. Collison, 193 S. W. 531, Ark.

Teachers' Contracts.

School teacher did not agree to rescind contract of employment by surrendering keys to secretary of board after he had been discharged and prohibited from teaching any more.—Watkins v. Special School Dist. of Lepanto, 194 S. W. 32, Ark.

A school district is not warranted in discharging a teacher before his contract expired because of a rumor that he intended to run for county superintendent.—Watkins v. Special School Dist. of Lepanto, 194 S. W. 32, Ark.

Under Laws 1913, pp. 69, 70, ¶¶ 1, 2, 4-6, the board of directors of a school district can transfer a permanently employed teacher, who had been serving as principal, to another school, where she was an instructor, without a notice of charges and hearing thereon.—Alexander v. School Dist. No. 1, in Multnomah County, 164, P. 711, Ore.

PERSONAL NEWS OF SUPERINTENDENTS

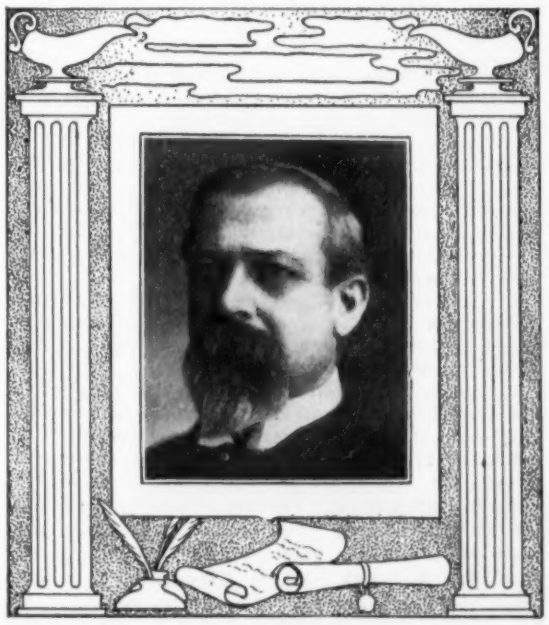
SUPT. STUDY PASSES.

Justin N. Study, superintendent of schools at Fort Wayne, Ind., during the past 21 years, died August 29 as a result of heart disease from which he apparently suffered for only three weeks. Up to a very short time before his death, he was actively engaged in his duties as superintendent, and his death was altogether unexpected.

Justin Nelson Study was born in Wayne County, Ind., in February, 1846, and when a small boy moved with his parents to Hagerstown. He attended the Ohio Wesleyan College at Delaware and earned his bachelor's degree in 1871 and his master's degree in 1874. He became professor of the schools at Anderson, Indiana, in 1871, and after 10 years of work, became superintendent at Greencastle. In 1884 he accepted the superintendency of the Richmond Schools where he served 12 years, until the Fort Wayne school authorities elected him to the position which he held until his death.

PERSONAL NEWS OF SUPERINTENDENTS.

J. W. Browning has been appointed superintendent of schools at Hot Springs, Ark.



JUSTIN N. STUDY
Fort Wayne, Ind.

W. S. Edmund, of Medina, O., has been appointed superintendent of schools at Sandusky to succeed J. T. Begg.

Hugh R. Hick has been elected superintendent of schools at Delphos, O.

A. S. Faulkner, of Durant, Okla, has been appointed president of the Northwestern State Normal at Alva, Okla.

Mr. William F. Russell, of Nashville, Tenn., has been appointed Dean of the College of Education, University of Iowa. Mr. Russell succeeds Walter A. Jessup.

Mr. J. M. Mills, formerly of Ogden, Utah, has been elected superintendent of the Granite Consolidated Schools of Granite, Utah.

Julius M. Winslow, of Elizabeth, N. J., has been elected superintendent of schools at Glen Cove, L. I., New York.

Mr. Graff Goes To Indianapolis.

Ellis U. Graff, formerly of Omaha, Neb., has recently been appointed superintendent of schools at Indianapolis, Ind., to succeed J. G. Collicott.

Mr. Graff is a native of Iowa. He received degrees of A. B. and Master of Arts from Lake Forest and completed a post-graduate course at the University of Chicago. He has served as principal of high schools in Red Oak and Marshalltown, Ia., and Rockford, Ill.

Supt. L. L. Slonninger, of Hastings, Minn., died August 25th after a two years' illness.

Supt. Lee F. Jones, of Kelso, Wash., has resigned to become a candidate for the second officers' training school.

Carmon Ross, of Doylestown, Pa., has been elected superintendent of schools at Chester.

H. W. Anderson, of Iowa City, Ia., has been elected Director of Research for the board of education at Omaha, Neb.

Henry E. Snavely, of Myerstown, Pa., has been elected superintendent of schools at New Castle, Del.

Supt. G. W. Golden, of Pen Argyl, Pa., has been elected principal of the high school at Chester.

Supt. B. O. Greening, of Eveleth, Minn., has resigned to accept the position of Director of Rec-

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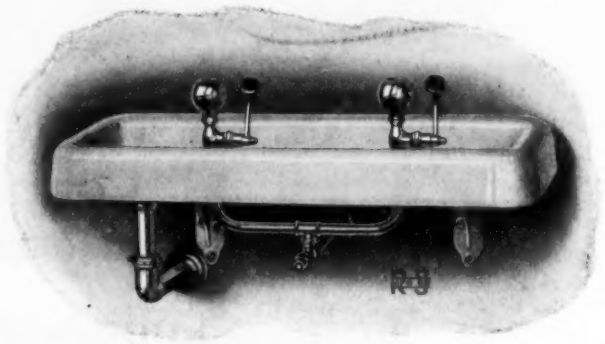

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reation at the army training camp, Fort Worth, Tex.

Mr. D. E. Porter has recently resigned the principalship of the Shawnee (Okla.) High School, to accept the principalship of the High School of Commerce at Omaha, Nebraska. Mr. Porter was for ten years assistant principal of the Oklahoma City High School and for the last two years was principal of Shawnee High School. His salary in Omaha will be $3,000 for the first year and $3,300 for the second year.

Leon O. Merrill, superintendent of schools in Huntington, Russell, Blanford and Montgomery, Mass., has resigned.

Seth G. Haley, principal of Monson (Mass.) Academy, has resigned to devote his time to military recreation work.

John D. Brooks, of Gloucester, Mass., has accepted the superintendency at Amherst.

Stanley Cummings, for the past few years assistant in Dickinson Academy, Deerfield, Mass., has been elected principal of the Arms Academy at Shelbourne Falls. He succeeds J. W. Vose who has undertaken recreation work at an army camp.

Nevada, Mo. Upon recommendation of Supt. F. H. Barbee, the board of education has increased the salary of the superintendent and of all the grade teachers on the staff by five per cent. The high school teachers have received an increase of ten per cent.

Mr. H. W. Anderson of Iowa City, Ia., has been appointed Director of Research Work at Omaha, Neb. Mr. Anderson will direct the activities of the Bureau in the scientific investigation of school conditions and progress of pupils.

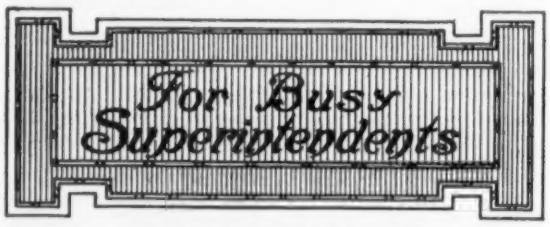
Supt. O. P. Bostwick of Clinton, Ia., has completed 28 years of service in the Clinton schools.

Walter S. Edmund, of Medina, O., has been appointed superintendent of schools at Sandusky, to succeed James T. Begg.

C. R. Reed, of Amherst, Mass., has been elected superintendent of schools at Rockford, Ill.

The Missouri State Teachers' Association has appointed a committee of educators who will conduct a survey of the country schools of the state. The survey will require a year to make.

The committee is composed of the following: State Supt. Uel W. Lamkin, Judge W. K. James, representative of Andrew county in the general assembly; P. P. Lewis of St. Louis county, chairman of the board of agriculture; Professor George Melcher, superintendent of efficiency in the public schools of Kansas City; E. C. Burton, superintendent of schools of Wayne county; Professor Herbert Prior, superintendent of the Mexico public schools.



AKRON SURVEY.

Radical changes in the public-school system of Akron, Ohio, have been recommended in a recent report of the educational committee of the Chamber of Commerce. The report which is based on a survey of the schools made by Dr. H. L. Brittain of Toronto, Canada, a few years ago, recommends a reorganization of the board of education. The committee finds that the board is over-organized, unwieldy and spends too much time on administrative details.

1. Re-organization of the board of education, which is held to be over-organized, reduction of board members from seven to five and election of all members at large. (Two now elected by districts.) This plan includes abolishment of the secret informal meeting of the board insofar as they pertain to discussions of school policy.

2. Re-organization of the supervision of schools by appointment of three or four assistant superintendents. The report recommends the conference plan of management instead of the one-man system as now in use.

Ask Larger Plants.

3. The following school plant and equipment for each school district in Akron—auditorium large enough for both adults and children of the district, five-acre playgrounds, manual training and domestic science for seventh and eighth grades, summer classes, swimming pools for both adults and children, club rooms for student and adult clubs. In congested district six elementary grades, three grades in junior high school and three grades in senior high school. Better ventilation.

4. Gymnasiums so that every school child may have a thoro physical development.

5. Community center work. The investment of the community in the school system should be for all ages of the community. To this end a thoro going community center program should be carried out under supervision of an assistant school superintendent.

Commands Night Schools.

6. Night school work for adults and continuation classes for young people should be provided so that any individual who so desires may pursue his education while he is earning his living. It is recommended that instruction of aliens be taken over by school board. It is now financed by the Chamber of Commerce and supervised by the board.

7. Accounts of school board are on cash basis only and cannot be used to determine actual operating costs for the year or from month to month. Entirely inadequate for administration purposes. Independent audit should be made and, in co-operation with state authorities, a system of accounting which will show actual costs in total and unit form should be installed.

8. More publicity should be given to school affairs and school records. Absence of printed statistical, financial and descriptive reports is grave obstacle to proper administration and also to understanding of school situation by people who pay the bills.

Urge Higher Pay.

9. Teachers' salaries should be increased so that Akron teachers cannot be taken away by other cities that pay higher wages.

10. The Platoon system as used by Gary schools is not recommended. The survey report holds that it does not reduce capital or current expense and objects to the use of different teachers as contemplated by the plan. In its place

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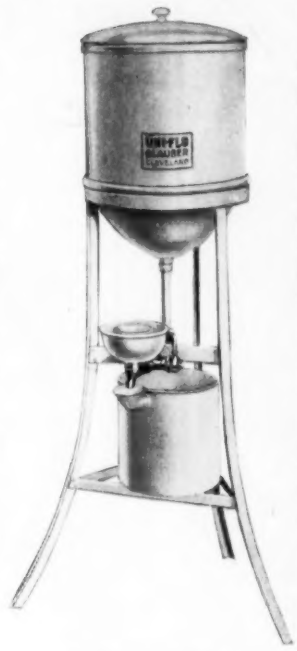

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recommendation is made that a "shift plan" be tried out in one school in a congested district. This involves use of three regular classrooms and one special classroom and is said to give economy in space.

11. Co-operation between public schools, the municipal university and the Kent Normal School to obtain improved educational advantages for all.

Suggests Citizens Aid.

12. For the course to be pursued in obtaining adoption of the recommendations the report urges as the first step employment of accounting experts to show the true financial status of the school system. Various clubs and organizations are asked to study the report at meeting so they may be fully informed and help in carrying out the plans. Formation of a civic league to combine with other cities to get amendments to the Smith one per cent law so that sufficient funds can be obtained is urged. The report also recommends action to change the basis of representation in the legislature so that representatives will be elected on a basis of population thereby giving cities their proper representation in the general assembly.

What Schools Do Well.

What Akron schools do well, according to the school survey conducted by Dr. H. L. Brittain for the Chamber of Commerce:

1. Automatic student administration whereby pupils gain self-confidence by taking charge of classes.
2. The study-recitation in which teachers and children study together and the child is taught how to study.
3. Loyalty and enthusiasm of teachers.
4. The amount of individual instruction given to children who need it.
5. The keeping of educational records of pupils.

Urge Conference System.

Collateral to this is a proposal to reorganize the supervision of schools so that the one-man control as now exercised by Supt. Hotchkiss shall be replaced by a conference system of management. To this end three or four assistant superintendents should be named, the committee declares. It is held that the Akron school system is too large under the domination of one man.

The primary basis for the survey, the committee announced, was to find out what is best for the welfare of Akron children and the investigation was pursued to determine what the line of growth of the education system should be so that each succeeding group of children should be properly educated to fit into its life in the city.

BUSY SUPERINTENDENTS.

Supt. John D. Shoop, of Chicago, Ill., has ordered that district superintendents uphold the rule of two fire drills a month in schools of their districts. Principals are required to make monthly reports to the district superintendents. The warning has become necessary because of carelessness on the part of some of the principals.

Milwaukee, Wis. The board has ordered that departmental teaching be extended to additional schools this year. A trial of the plan in two schools last year has proven an entire success.

About six per cent of the grade school pupils of Canton, Ohio, failed of promotion during the past year according to a report by Supt. John K. Baxter. The largest number of failures occurred in the first grade and was largely due to irregular attendance, illness and other causes which the schools could not control.

Cleveland, O. Under the direction of Supt. F. E. Spaulding, special classes in citizenship and English are planned for the benefit of foreigners. The work which has been assigned to Mr. A. W. Castle, will include night classes in citizenship and English thru the four grades of the elementary schools, shift classes in factories for employed men, afternoon classes for women, with kindergartens for the care of infants, extension schools in junior and senior high schools for graduates of elementary courses, a naturalization school and a special two-week course in the Normal School for teachers of citizenship classes.

Columbus, O. An opportunity school for backward pupils has been opened with an enrollment of forty pupils. The school is equipped with playgrounds, gymnasium, model kitchen and home, gardens and workshops.

Ohio's state superintendent has much less actual power and authority in the matter of school regulation than do similar officials in other states, according to a report of the school survey committee on organization and supervision. The committee recommends that the Ohio superintendent be given power to originate and enforce policies, rules and regulations affecting the public schools of the state without being handicapped by a legislature which too often may be approached effectively only thru political influences.

The present plan of appointment for a term of four years is commended, but it is suggested that in the removal of the state head, the complaints in writing, of a majority of the city and county superintendents, should be made the sole cause.

The present system of medical inspection in Ohio schools is approved, but it is recommended that the state law be made mandatory for all schools, instead of permissible as at present.

Teachers of Columbus, Ohio, are nearly one hundred per cent perfect in their professional training, acording to a report on teachers' preparation made recently by the Survey Committee. It is shown that a reasonably high percentage of teachers and principals, as well as department directors, are graduates of colleges and normal schools, the single exception being the manual training department.

The report shows that eighteen of the 67 principals are college graduates and 41 are normal school products.

Of the seventeen kindergarten teachers, one is a college graduate, thirteen are normal school graduates and one is a high school product. Of 518 first to sixth grade teachers, 22 are college, 445 normal school and 54 high school graduates. Of 217 seventh to ninth grade teachers, 80 are college, 121 normal school and 27 high school graduates. Of 130 tenth to twelfth grade teachers, 103 are college, 37 normal school and seven high school graduates.

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Name..... Position.....

Address..... Institution.....

Teachers' Salaries.

TEACHERS' SALARIES.

Cleveland, O. A recent report of C. W. Sutton, head of the Division of Reference and Research shows that the teaching staff for the present school year includes 2,981 instructors, compared with 2,878 employed last year. There are 158 new teachers as compared with 126 the year previous.

The average salary of male teachers in elementary grades is now $1,200. Last year they received an average of $1,150 a year. Women teachers in elementary schools are paid an average of $897, while last year they were paid $850.

The highest average salaries paid men teachers in grades is $1,757, compared with $1,645 last year. Women teachers in these grades receive an average of $1,505, compared with $1,408 last year.

Stafford Springs, Conn. The board has fixed the minimum salary of elementary teachers at $9 and the maximum at $16 per week. High school instructors will be paid a minimum of $500 and a maximum of $900 per year.

Woonsocket, R. I. The board has increased the maximum salaries of all teachers $50. Grammar principals will receive a maximum of $1,500, assistants $800, grammar grade teachers $825, and primary instructors $750.

The most important item in the new budget for the New York City schools is the increase in teachers' salaries, proposed in one of President Willcox's amendments, from the present minimum of $720 a year and increases of $60, to a flat rate of $800 per annum for the first three years, $900 for the second three years and the usual rate of increase to $1,500 after that.

Another amendment changes the per diem salary schedule of additional teachers, school clerks, from the present flat rate of $3.50 per day to $3 a day for the first two years, $3.50 a day for the next three years, and $4 a day for the sixth and subsequent years.

A regular schedule for teachers of shopwork, trade and vocational subjects, with a minimum of $1,200 and a maximum of $2,160, after thirteen years. Critic teachers have been given increases of $100 per annum.

Cleveland, O. The pay schedule of teachers will be raised approximately ten per cent following the action of the county budget commission in granting an extra $270,000. The extra amount for teachers' salaries will be deducted from the city's general purposes budget.

Portland, Ore. A general increase of fourteen per cent in salaries has been given to school teachers. The increases will increase the payroll $177,638.

Ishpeming, Mich. School teachers have been given a flat increase of ten per cent.

Following the recommendation of Supt. E. A. Gast, the Du Bois Board of Education, Du Bois, Pennsylvania, has adopted the following salary schedule for teachers in the grades.

Elementary Women Teachers (Grades 1-6).

	Per mo.
Provisional Certificates	$45.00
Professional and Normal Certificates	55.00
1st year in Du Bois under certificate	60.00
2nd year in Du Bois under certificate	65.00
3rd year in Du Bois under certificate	70.00
4th year in Du Bois under certificate	75.00
5th year in Du Bois under certificate	80.00
Maximum—	
(With certificates showing the completion of one-fourth year's work at an approved college for teachers)	82.50
(With one additional summer session as above)	85.00
(With two additional summer sessions as above)	87.50
(With three additional summer sessions as above)	90.00

Notes: 1. Teachers not affected by the minimum salary law of 1917 will be advanced $5.00 per month for the year now beginning. 2. Teachers not affected by the new salary schedule will, if retained, be advanced $5.00 per month annually, until the maximum of $80.00 is reached.

Women Teachers (7th, 8th and 9th Years).

Teachers appointed for departmental work must have graduated from a four year high school or the equivalent and must hold a state certificate.

Teachers not college graduates must have had at least four years' experience in teaching. College graduates must hold either a college provisional or a college permanent certificate.

	Per mo.
1st year in Du Bois under schedule	$ 70.00
2nd year in Du Bois under schedule	75.00
3rd year in Du Bois under schedule	80.00
4th year in Du Bois under schedule	85.00
5th year in Du Bois under schedule	90.00
Maximum	90.00
(With certificate showing completion of one-fourth year's work in education at an approved college for teachers)	92.50
(With one additional summer session as above)	95.00
(With two additional summer sessions as above)	97.50
(With three additional summer sessions as above)	100.00

Notes: 1. Teachers not affected by the minimum salary law of 1917 will be advanced $5.00 per month for the year now beginning. 2. Teachers not affected by the new salary schedule will, if retained, be advanced $5.00 annually until the maximum of $90.00 is reached, provided that said teachers meet the educational requirements for teachers of this schedule.

Previous to the adoption of this schedule, all teachers in the elementary grades were on the same salary basis, according to the respective kind of certificates held. The maximum salary was $70 per month for nine months, and was possible after sixteen years of service.

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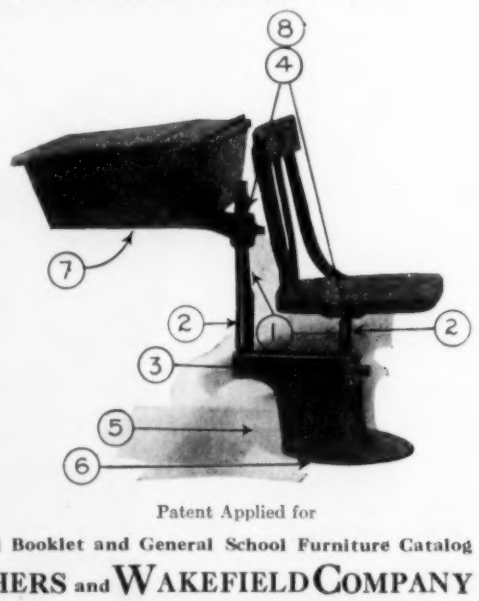

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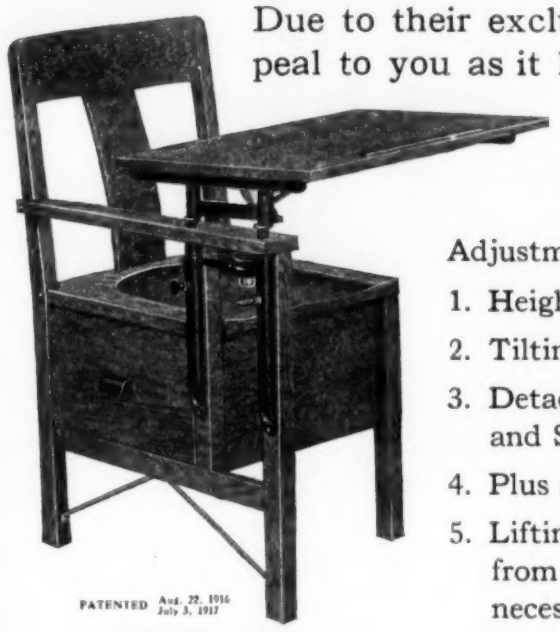

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Building and Finance

Omaha, Neb. The Committee on Buildings and Grounds of the board of education has prepared a building program which will require $2,000,000 additional school bonds. The new improvements will include a High School of Commerce, a north side high school and eight new grade buildings to replace existing structures. The new program will cover the needs of the schools for a period of years and will eliminate the indefinite and haphazard plan which has formerly been followed.

The financial statement of the Portland, Ore., school board, covering the first seven months of 1917, shows an increase of $183,403, or about 12.5 per cent over corresponding months for 1916. Of the $2,872,000 appropriated in the 1917 budget, $1,642,812 have been expended.

The school board of Columbus, O., has decided to ask an additional two-mill tax levy for the schools. This will give the schools $500,000 additional during each of two years, and will make it possible to keep the schools open thru the present year.

A modified form of the double platoon system has been put into operation in ten elementary schools of Cleveland by Supt. F. E. Spaulding. It is planned to inaugurate departmental teaching, with the classes in charge of regular teachers and special subjects in charge of specially assigned instructors.

Three classrooms are designated as supplementary rooms. Each class has a forty-minute period in a supplementary room. This, plus three and a half hours spent in regular classrooms, gives a total of four hours and ten minutes of classwork.

The state apportionment for schools in Arkansas amounts this year to $1,396,454, or $2.12 for each child of school age.

Hudson, Wis. The board has not been able to obtain satisfactory bids for the erection of a new high school. The lowest figures quoted would bring the cost of the building considerably over $125,000, which would exceed the money available. The board has attempted to solve the difficulty by requesting the architect to make alterations in the plans which will reduce the size of the building.

In a recent report on the survey of the Columbus schools, Director W. C. Daubert makes the assertion that the school buildings as a whole are in such a condition that they are a disgrace to the city.

Mr. Daubert shows that 41 portable buildings and 47 basements and halls are used for schoolrooms which are unfit for school children. The city is short 108 rooms of the requirements necessary for elementary pupils. The estimated cost for buildings of a modern character is $700,000. In all of the 57 buildings, there are only four gymnasiums while there should be one to each building. At least ten elementary buildings of 46 rooms each are needed to accommodate the present attendance, with no allowance made for future growth.

There are no strictly high school buildings in Columbus, according to Mr. Daubert. The most of them are really elementary structures and each was constructed at an initial cost of about $300,000, or about the cost of one modern elementary building.

In the matter of fire protection, Mr. Daubert quotes from a report of the industrial commission to the effect that only three buildings are up to the standard in safety from fire. Only ten or eleven buildings have any fire protection.

Mr. Daubert urges the passage of the proposed $3,000,000 bond issue and recommends that the teachers' pension system be made state-wide instead of local, with the auditing under the direction of the state insurance department.

Fitchburg, Mass. Under the direction of Supt. Ernest W. Robinson, the platoon system of class organization has been put into operation in two of the schools. The plan makes it possible to accommodate a larger number of pupils and is capable of extension to other buildings.

New York, N. Y. A comprehensive and simultaneous school building survey, district by district, thruout the city has been planned by the Committee on Buildings with a view of ascertaining whether or not the buildings comply with the rules for fire prevention, and the correction of defects. The estimated cost of the survey is $28,000.

The plan proposed eliminates a former policy of taking care of individual buildings which are deemed the greatest risks, irrespective of district lines.

A million and a half dollars will be needed to place the school buildings of Columbus, Ohio, in a condition to meet the demands of the state inspectors in the matter of fire prevention, health and safety of the children. The report which was compiled by E. J. Ashton, superintendent of buildings, and David Riebel, school architect, shows that of 60 buildings, six, or ten per cent, are fireproof. In the remainder, fireproof stairways, new and modern heating plants and increased window space are necessary improvements.

The report shows that the $1,500,000 required for these improvements would provide for no new buildings; would leave fifty basement rooms still in use; would necessitate the use of 35 temporary portable structures now in use; would provide for no additional grounds, no auditoriums for community use and no provision for high school structures.

"Our high schools have no adequate auditoriums, are wholly without gymnasiums, lack proper equipment and offer no facilities for manual work. Columbus is facing a serious educational problem. I believe she has a sufficient

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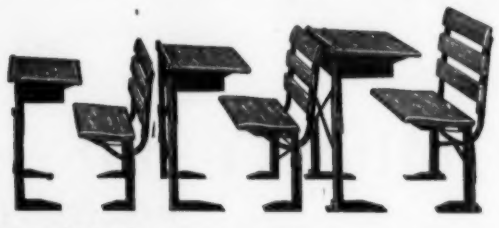

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Solid cherry woodwork, the best of all woods. Metal parts entirely of steel, japanned an olive green shade—soft to the eye. Metal pen groove saves ink from the wood and makes the top more easy to refinish. Noiseless close-folding seat.

This desk has made many friends during the three years it has been gradually put on the market.

A sturdy desk of light weight with special packing is accessible to customers at long distance at a low cost of freight in excellent order direct from the oldest school desk factory in this country.

NEW JERSEY SCHOOL-CHURCH FURNITURE CO.

Trenton, New Jersey

* Counting the numerous diseases carried by dust should not all desks be plain and smooth?

number of intelligent and public spirited citizens to insure a period of growth and development in her public school program," the statement concludes.

Birmingham, Ala. The school board has undertaken an extensive building program to include the remodeling of all existing buildings and the erection of a number of new structures. The plans of the board provide for the erection of 32 buildings including a number of additions. There will be four modern high schools and about sixty grammar schools. Plans have also been made to improve extremely bad situations in the negro schools. At least six new buildings, including a high school, are to be erected.

It is planned to erect the first buildings in the districts where education facilities are most inadequate.

Dr. J. M. Terman has resigned as a member of the committee on standardization of Schoolhouse Planning and Construction. Mr. J. O. Berkowitz of New York City has been appointed a member of the committee.

The several states of the union spent thru the direct expenditure of their State Departments of Education, a total sum of $153,825,748 during the year 1916 for schools and libraries. This sum according to the Bureau of the Census does not include the expenditures made by local school districts and municipalities.

An Illinois paper in reporting a routine inspection of school buildings by the board of education summarized the findings of the board in a significant little paragraph:

"Freshly painted walls, floors scrubbed and oiled, drinking fountains set, toilets and playrooms sweet and sanitary, coal bunkers well filled and boilers in readiness for their winter's load—all these the visitors noted in every school visited."

Seattle, Wash. The school tax levy for the coming year has been raised from seven to eight and one-half mills. The increase is intended to cover the increased expenditures for teachers' salaries and other items.

The legislative blunder of last spring which balked the proposed "million-dollar-a-year" building policy for the Minneapolis schools may result in a change of policy, according to Supt. B. B. Jackson. The high cost of material and other conditions have so modified the five-year building program that it could not now be carried out with economy.

The last legislature authorized the city to issue for school purposes, bonds that it was intended should yield approximately $4,000,000 in the coming four years. Thru a flaw in the wording of the law the actual amount which can be issued is much less. Only 63 per cent of this year's issue will be now available because the fiscal year begins January first.

Detroit, Mich. Plans for school buildings to cost about $700,000 have been prepared by a special committee for approval.

The public schools of Cleveland face a possible shortage in funds this year in spite of an estimated increase in operating revenue of $965,324. The deficit which is due to the general advance in prices of all supplies and materials is estimated at $55,763.

Chicago, Ill. War prices and other conditions have brought the schools to such a point that a shortage of $1,000,000 is expected. The present board has inherited a money shortage of $240,000 from the former administration.

BUILDING AND FINANCE.

Virginia, Minn. The board has asked for bids on the construction of a new Junior High School, the total cost of which is estimated at $450,000. C. E. Nystrom, of Duluth, is the architect.

A recent report on a survey of Philadelphia school buildings by a staff of experts, shows that only ten buildings are in poor condition, as against fourteen last year. The total number of buildings visited was 355, of which seventeen are portables and twelve are rented structures.

Sanitary conditions in school buildings are better this year than last, according to the report. The buildings were marked on a regular system of points, namely, lighting, air space, crowding and other conditions detrimental to health. Twenty schools are rated poor, 99 as fair, 88 as good and 119 as excellent. The average was 83.57 per cent as compared with 82.6 per cent last year.

New York, N. Y. The board has adopted a budget of $44,311,367 for 1918, an increase of $2,889,920 over 1917. The schools will receive $42,501,156 as their share of the assessment receipts, leaving $1,810,211 to be provided for.

Kansas City, Mo. The cost of school supplies exceeds, by thirty per cent, that of last year. Building supplies and furniture have suffered the greatest increases due to the increased use of wood and metals. Teachers' desks which last year cost $17.50 now cost $22.50, black ink crystals have increased in cost from $1.30 to $1.80 per pound and coal has also risen in price.

Sacramento, Cal. The board has asked for $465,200 for the maintenance of elementary schools, of which $401,000 are for teachers' salaries.

SCHOOL BUILDING NEEDS IN OMAHA.

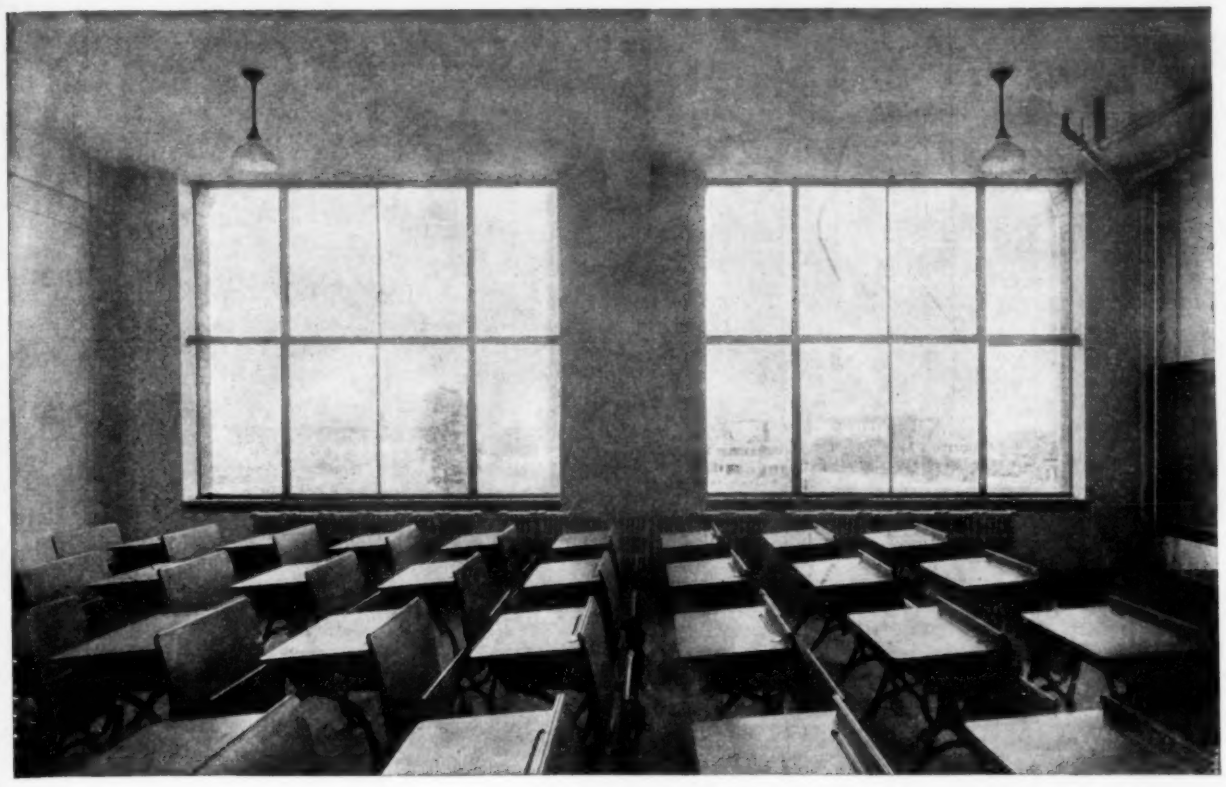
Supt. J. H. Beveridge, of Omaha, Neb., has recently called attention to the condition of the school buildings and the causes for same. According to Supt. Beveridge education, health, safety, economy and happiness are the five watchwords which should be a part of the board's school building policy.

"Buildings," said Mr. Beveridge, "should be so constructed that parents will feel that a disaster such as occurred at Collinwood, O., is impossible in Omaha. If the people of the city are to feel secure, Omaha must spend money.

"A uniform standard of building is necessary. Architects must keep in mind rather the children who are to be taught than those who look at it as they pass by.

"School buildings should be sanitary in every way, properly heated, ventilated and lighted, and provided with playrooms and playgrounds. The health of children is a public trust."

Commenting on the recent survey conducted in Omaha by Dr. G. D. Strayer, Supt. Beveridge shows that the survey indicates just what is wrong with the school buildings. The report pointed to defects in sanitation, lighting, ventilation and characterized the buildings in some cases as unfit for use. Playground facilities are lacking and there is a poor arrangement of buildings.



Perfect daylighting of classroom, Allentown, Pa., High School. United Steel Sash for all windows. Ruhe & Lange, Architects.

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Make the schoolroom more attractive and you will see the results immediately reflected in the faces of both teacher and pupils.

Begin with the Windows for that's where the light comes in. If the windows are not of the proper construction then it's no use in trying to brighten the rest of the schoolroom, because light must first be properly admitted before it can be reflected.

The three essentials for the schoolroom are

Ample Ventilation
Full Daylight
Absolute Fire Protection

These are best obtained with ship and effective hardware **UNITED STEEL SASH** where improved construction, accurate workmanassure the perfection of operation necessary in schoolroom sash. Guarantee the maximum of light and air in your schools by the use of United Steel Sash.

INVESTIGATE—Write for United Steel Sash Catalog and further information

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Department S-68. Youngstown, Ohio

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According to Dr. Strayer, a perfect rating should grade one thousand points, the rating being based upon location, ventilation, lighting, heating, sanitation, playground facilities and general arrangement. Of the 56 buildings examined, seventeen are given a rating of less than five hundred.

The report of the survey committee, in part, is as follows:

Among the seventeen buildings scored at 500 or less are six frame buildings or groupings of frame buildings, as well as the High School of Commerce and the Park School, provisions for the abandonment of which are being made. The Central Benson School, a poorly equipped wooden structure and the Florence School also are included.

It is the judgment of the committee that the High School of Commerce should be abandoned as soon as possible, and should not again be used for school purposes.

Omaha elementary schools are particularly deficient in their heating and ventilating systems, their fire protection systems, their artificial lighting systems, their water supply and toilet systems, and they lack large rooms for general use, such as auditoriums, lunch rooms, playrooms, and also rooms for the use of the teachers and rooms for nurses.

As a whole, apparently little attempt has been made to apply any standard in the purchase of elementary sites. Instead of buying large tracts of land when land was cheap, piecemeal additions have been made to meager playgrounds.

In contrast with the attractive and well-kept site upon which the Central High School stands, the sites of many elementary plants show little attempt made to make schoolhouse surroundings as attractive as they can be made in such a beautiful city as Omaha. Too frequently sheds and barns surround school buildings, small houses and outhouses are on the same square, and grounds are hemmed in by fences and small structures.

The one-story South Central School, first opened for school purposes in September, 1916, is listed among the schools which furnish inadequate playgrounds.

The report severely criticises the fire protection arrangements in the schools, listing 36 elementary school buildings as scoring less than nine points out of a possible 65. Only three school buildings were scored as high as 76 per cent perfect on fire protection.

SCHOOL FINANCE NOTES.

The school board of Wyandotte, Mich., has adopted a budget of $68,500, or $29,500 more than the total for last year. Two items held responsible for the increase are a high school site and the high prices for fuel.

The county board of supervisors of Los Angeles County, Cal., has fixed the tax rates to provide revenues to cover expenses in Pasadena and other districts so that more money than last year will be available for operating expenses, for acquiring additional land and for making improvements to buildings.

A new law makes it possible this year, for the first time, to provide a building fund tax. The eight per cent tax allowed by the supervisors will bring the Pasadena schools about $42,000.

The school board of Salt Lake City, Utah, which has recently been victorious in its effort to compel the county assessor to increase the county tax levy, has proceeded with its plans for an extensive building program and the expenditure of $188,000. The increase in the tax levy amounted to $340,000, from which $65,000 was deducted for an operating deficit, leaving $275,000 as available funds.

The proposed expenditure of the board is as follows: New unit for the Bryant Junior High School, $60,000; Junior High School at Sugar House, $50,000; reconstruction of Emerson School, $30,000; manual training and domestic science addition to the Onequa, $8,000; addition to Forest, $40,000.

Suit has been brought in the Circuit Court of Ramsey County, Minn., to test the right of state officials to pay state school aid deficits out of current school funds.

Davenport, Ia. The board is planning the purchase of eight hundred tons of coal at the best market price, which will be stored on the property of the schools.

Robert J. Mayer, assistant to the school architect of Cleveland, has been commissioned by the government to install heating and ventilating systems in the hospital buildings at the Chillicothe army cantonment.

The Cleveland board of education has fixed tuition fees for non-residents at the maximum permitted by the laws of the state of Ohio. Under the new rules, the charge will include the per capita cost of maintenance, plus five per cent of the determined depreciation and five per cent of the invested cost of the building attended by the pupil, in addition to the tuition for last year. The change is intended to more nearly meet the cost of the instruction given and to make it possible to spend the bulk of the city's money for children of the resident taxpayers.

Chicago, Ill. Business Manager P. B. Coffin of the board of education has been given permission to purchase $60,000 worth of coal without the formality of obtaining bids. An approximate cost of $6 per ton has been fixed but there is nothing to limit the business manager to paying that amount.

The school board of Minneapolis has inaugurated a number of changes in the interest of economy. The opportunity rooms conducted in the South High School and in two grade buildings have been discontinued and the pupils transferred to ungraded rooms.

A second change has been made in the repair department. No repairs will be made this year unless absolutely necessary to the continuance of classes. The repair force has been reduced from 160 to between 30 and 40 men.

E. Shorrock, president of the school board at Seattle, Wash., has been elected as trustee of the teachers' retirement fund for the Seattle district.

Boston, Mass. The school board has been able to obtain only thirteen thousand tons of coal for the schools. Additional coal must be purchased very soon to meet the demands of cold weather. The present shortage is due to the inability of the schools to meet the high prices in fuel.

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If your school has shower baths, then certainly there should be a satisfactory way of furnishing *soap*.

If the student furnishes his own soap, you will agree this is very inconvenient. If individual cakes are furnished free of charge, this practice becomes quite expensive. Further, large cakes of soap left in the showers to be used by the different students is most unsanitary.

The above are only a few reasons why a vending machine should be installed. It is sanitary, self-supporting, and satisfactory to the students.

Write for list of schools now using the Palmolive Vending System. Also illustrated matter. State number of showers, etc., in your school. This places you under no obligations.

B. J. JOHNSON SOAP CO.
MILWAUKEE, WIS.

Out of the Day's Work

A MONTHLY FINANCIAL REPORT.

The accompanying illustration is a miniature of the monthly financial report which the Boise, Idaho, school board uses in considering the condition of its treasury.

The report indicates in the eight parallel columns: (1) the payments of the month; (2) the payments of the same month for the year previous; (3) the increase of expenditure of the present over the previous year; (4) the decreases in expenditures for the same period; (5) the total expenditures for the year to date; (6) the total expenditures for the previous year; (7-8) the increase or the decrease for the period. The receipts are treated in similar parallel columns and a summary is made at the bottom of the page.

The board separates the payments as follows:

1. **Expenses of General Control.**
   - Board and Secretary's office (including salaries).
   - Elections and census.
   - Office in charge of building (including salaries).
   - Finance office and accounts (including salaries).
   - Superintendent's office (including salaries).
   - Other expenses of general control.
   - Total Expenses of General Control.
2. **Expenses of Instruction.**
   - Salaries of supervisors.
   - Salaries of principals.
   - Salaries of teachers—regular.
   - Salaries of teachers—substitutes.
   - Textbooks (not to be sold).
   - Stationery and supplies used in instruction.
   - Other expenses of instruction.
   - Total Expenses of Instruction.
3. **Expenses of Operation of School Plant.**
   - Wages of janitors and other employes.
   - Fuel.
   - Water.
   - Light and power.
   - Janitors' supplies.
   - Other expenses of operation of school plant.
   - Total Expenses of Operation of School Plant.
4. **Expenses of Maintenance of School Plant.**
   - Building, repair and upkeep of grounds.
   - Repair and replacement of equipment.
   - Insurance.

BOISE PUBLIC SCHOOLS
SECRETARY'S REPORT

Financial Statistics for Month of ..... 191...

PAYMENTS

	THIS MONTH	THIS MONTH LAST YEAR	INCREASE	DECREASE	THIS YEAR	SAME PERIOD LAST YEAR	INCREASE	DECREASE
Expenses of General Control—								
1. Board and Secretary's office (including salaries)								
2. Elections and census								
43. Total								
44. Grand Total of Payments								

RECEIPTS

Revenue Receipts—								
45. From State								
46. " County								
58. Total								
59. Grand total of receipts								
60. Balance last report								
61. Total								
62. Less grand total payments as above								
63. Remaining on hand								

Signed ..... Secretary

Form used in Boise, Ida., for Reporting Monthly Financial Statistics.

Waite High School, Toledo, Ohio
E. M. Gee, Architect for Board of Education
Plastered throughout with Hydrated Lime Plaster

TOLEDO SCHOOLS

Plastered with

Hydrated LIME PLASTER

SOUND DEADENING PLASTER

FOR SCRATCH AND BROWN COATS

STANDARD PLASTER FOR ALL SCHOOLS

Acoustical authorities are agreed that a material containing millions of tiny pores is a better non-conductor of sound than a material which is dense.

Hydrated Lime Plaster hardens on the wall with millions of microscopic pores—this is the reason it is known as the standard plaster for school buildings.

It prevents sound from being carried from one room to another through the plaster.

All of the Toledo schools erected within the past few years are plastered throughout with Hydrated Lime Plaster for scratch and brown coats.

School Boards are requesting it on account of reducing noise to a minimum, and school architects are specifying it.

Hydrated Lime Plaster gives the same good old results that were formerly accomplished with lump lime, and eliminates the disadvantages of lump lime.

Every pound of Hydrated Lime is thoroughly slacked—there is no pitting or popping of unslacked particles of lime when Hydrated Lime Plaster is used.

Send for our bulletin "Standard Plaster for School Construction." It is full of valuable information on the subject.

HYDRATED LIME BUREAU

of the

NATIONAL LIME MANUFACTURERS ASSOCIATION

1502 Arrott Building Pittsburgh, Pa.

Other expenses of maintenance of school plant.
Total Expenses of Maintenance of School Plant.

5. **Expenses of Auxiliary Agencies.**
High school farm.
Library books.
Medical inspection (including salaries).
County advisory.
Total Expenses of Auxiliary Agencies.
Miscellaneous Expenses.

6. **Outlays—Capital Acquisition and Construction.**
Land.
High school park.
New buildings.
Alteration of old buildings.
Equipment of new buildings and grounds.
New equipment of old buildings.
Total Outlays.

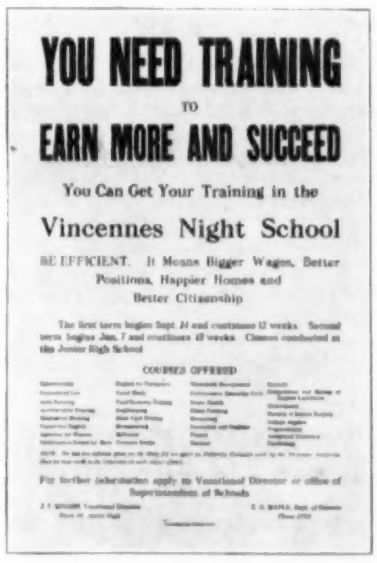
7. **Other Payments.**
Tuition refunds.
Redemption of bonds.
Cafeteria.
Payments of sinking funds.
Payments of interest.
Textbooks to be sold to pupils.
Miscellaneous.
Total.
Grand Total of Payments.

8. **Revenue Receipts.**
From state.
From county.
From tax levy.
From tuitions.
Night school.
Rents and interest.
Licenses and other revenues.
Total Revenue Receipts.

9. **Non-revenue Receipts.**
Loans and bond sales.
Sales of realty and proceeds of insurance adjustments.
Equipment and supplies.
Books sold to pupils.
Cafeteria.
Refunds.
High school farm.
Other non-revenues.
Total Non-revenue Receipts.
Grand total of receipts.
Balance last report.
Total.
Less grand total payments as above.
Remaining on hand.

A SUMMER INSPECTION.

A tour of inspection of all the schoolhouses of Decatur, Ill., is arranged after the close of the summer repair season. The members of the board of education, the superintendent of schools and the business manager visit the buildings to make a critical examination of the basements, classrooms, corridors and grounds. At the close of the tour a dinner is served and the business affairs of the schools are discussed.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BE EFFICIENT. It Means Bigger Wages, Better Positions, Happier Homes and Better Citizenship
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A SUCCESSFUL POSTER.

The above poster is used to increase the attendance in night schools of Vincennes. It makes an appeal for increasing the vocational efficiency, the earning power and the citizenship of young men and women. The original poster measures 10 x 15 inches, and was printed by the students in the Vincennes High School. It was prepared by Mr. J. I. Sowers, vocational director and supervisor of the night schools.

Better Janitor Service.

The Janitors of Houston, Texas, compete annually for a medal which is awarded in the spring of the year for the best kept school building. An advisory committee of two ladies and two members of the board of education (ladies when possible) makes a visit to all the buildings with the business manager of the schools. Note is taken of every detail and allowance is made for the age and general condition of each building. A medal is awarded for the best school for white children and a second medal is awarded for the best colored school. Honorable mention is made of the two or three schools next in rank. The janitors are encouraged to be neat in person and the wearing of a suitable uniform is required.

A new state law extending the compulsory school age to 16 years has become effective in Rhode Island. The law is intended to cover the cases of boys and girls between the ages of 14 and 16 who have failed to complete a grammar school education and are not legally employed, but refuse to attend school.

The Arkansas Textbook Commission has dismissed the complaint of F. E. Buck, representative of the Macmillan Company, who charged that by the award of a contract for geographies to Ginn & Company, the state would be required to pay a higher price than is paid for the same books in Oklahoma. It has been shown that the higher cost of books in Arkansas is due to the fifteen per cent commission paid to dealers, whereas the commission paid in Oklahoma is only ten per cent. The retail price of the two Ginn geographies in other states is $1.28 while the same books in Arkansas cost $1.36. The additional eight cents in price does not go to the publisher but to the dealer. The Commission upheld the contract made with Ginn & Company.

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High School Administration

Montgomery, Ala. The present five-year schedule in the Lanier High School has been reduced to a four-year course. The course of study has been revised to include a general course, a college preparatory course, a home economics course, a manual training course and a commercial course.

Brunswick, Me. The high school day has been fixed at five hours, with four periods in place of six. School sessions open at 8:15 o'clock and close at 1:15 o'clock.

Milwaukee, Wis. The Boys' Technical High School, formerly known as the Boys' Trade School, has opened with an additional school building and a new six-year course.

Minneapolis, Minn. Students in high schools will pay a laboratory fee of fifty cents per semester in chemistry, physiology, botany, freehand drawing, shopwork, cooking and sewing. The laboratory fee will cover the expense of materials used by the students taking the course.

Superior, Wis. The public school system has been reorganized on the six-three-and-three plan. Four junior high schools have been established.

Governor F. O. Lowden of Illinois, in a recent letter to State Supt. F. G. Blair, has urged that young men below the draft age be encouraged to attend the high schools and colleges during the period of the war.

Cleveland, O. Four junior high schools are contemplated in the building program of the board of education. The buildings will cost about $600,000.

Minneapolis, Minn. Asst. Supt. Wm. F. Webster has recommended that every grade school be converted into a Junior High School. It is the opinion of Mr. Webster that boys and girls of the eighth grade would stay another year if they could remain in the same school. After completing the extra year, they would be anxious to take the other three years of high school.

Rock Island, Ill. Supervised study has been inaugurated in the high school. Students will spend seventy minutes under the direction of the teachers of the particular branch of study. One-half the period is given to recitation and the other half to study.

Waukegan, Ill., has inaugurated a departure in the matter of dress for high school girls. As a result of the agitation carried on during the last year of school, the school authorities have voted to adopt a rule whereby limitation has been placed on the expenditure for girls' clothing. The board has not adopted a uniform and ordered pupils to wear it. The authorities suggested to the girls that they keep within it by wearing middies or waists which are along the lines of middies. The change has been resorted to in order that a more harmonious feeling may be created among the girls of the high school. In the past, it has been conspicuous that many elaborate gowns have been worn by girls during school hours, which has made it uncomfortable for girls who could not afford to wear similar gowns.

Nevada, Mo. Under the direction of Supt. F. H. Barbee, supervised study has been introduced in the high school. The high school enrollment has increased materially, in spite of the present tendency due to the war.

Denver, Colo. Two junior high schools have been opened with a view of eliminating congestion in the grades.

The daily program of the Arsenal Technical High School of Indianapolis has been rearranged so that students may begin their work at 7:15 a. m. and quit at noon. The plan permits many boys and girls to get lunch and work a full afternoon.

New Castle, Ind. The high school course has been made more elective than in the past. A working system has been adopted for the benefit of students who may desire to engage in profitable work outside of school hours. The day is divided into eight periods, the last period being reserved for a consultation and study period. Those who have their work completed may leave school at 3:00 in the afternoon while those who have fallen behind are required to remain and make it up.

Newark, N. J. The alternating class plan has been adopted for five school buildings. Junior High Schools have been organized in three buildings.

Peoria, Ill. The Junior High School has been given a trial in the Longfellow and Greeley Schools. The extension of the plan will depend upon its success in these buildings.

EVENING SCHOOL NOTES.

Minneapolis, Minn. Evening courses will be continued this winter. Courses in stenography, typewriting, bookkeeping, home economics, food conservation and the management of power machines will be offered.

Duluth, Minn. The board has made a special study of evening school methods in other cities with a view to incorporation in the local schools. Courses in citizenship, commercial work, scientific subjects, manual training and machine work, home training, gymnasium and other branches will be offered.

New Britain, Conn. Evening courses will be offered at the Vocational High School and in the elementary classes of the grammar school.

New York, N. Y. Evening classes have been formed at Stuyvesant Evening Trade School for the teaching of proof reading, copy editing, typography, composition, and linotype and monotype work.

Detroit, Mich. Classes in telegraphy have been established at the Cass Technical High School.

Toledo, O. At least one, and possibly two, evening high schools will be formed for the teaching of stenography, typewriting, telegraphy, manual training, bookkeeping and other vocational subjects.

The supply of schoolbooks for the schools of Germany is about exhausted. Publishers of textbooks have been notified they may use what stocks of paper they have on hand but they will not be allowed any more paper for books.

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The TONE of this Grafonola is very loud and clear.

The PUSHMOBILE is equipped with rubber-tired wood wheels, making the outfit most convenient for moving from room to room. It has seven shelves so records may be classified, and doors fitted with lock and key to protect the records.

The complete outfit is furnished in either Oak or Mahogany.

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At the many Summer Schools held throughout the Country this year, the subject of Music Appreciation Records was given the greatest consideration and study. Columbia Music Appreciation Records, Method of Teaching, and Columbia Appreciation Teaching Cards have received the unqualified endorsement of leading educators.

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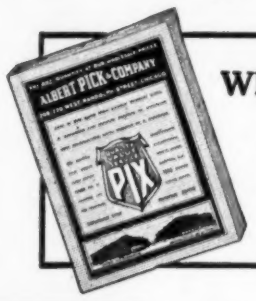

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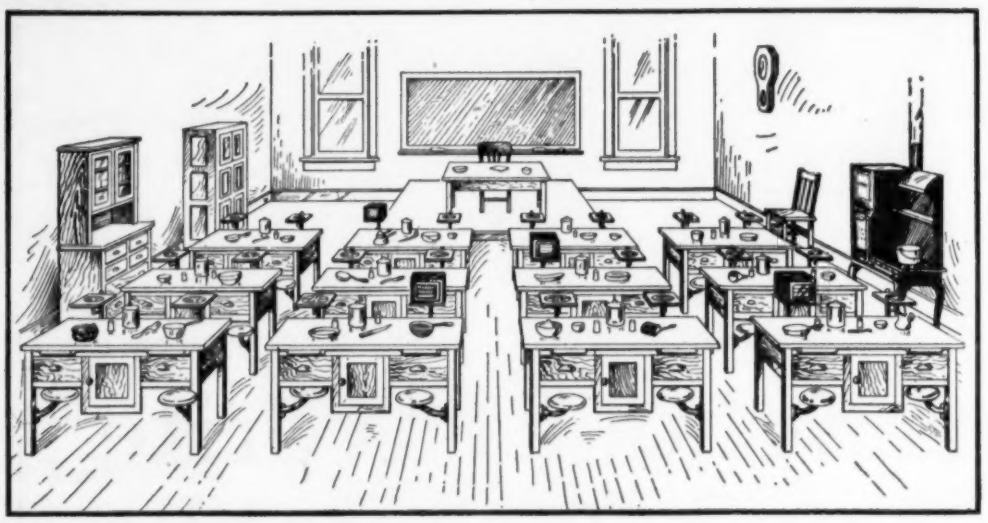

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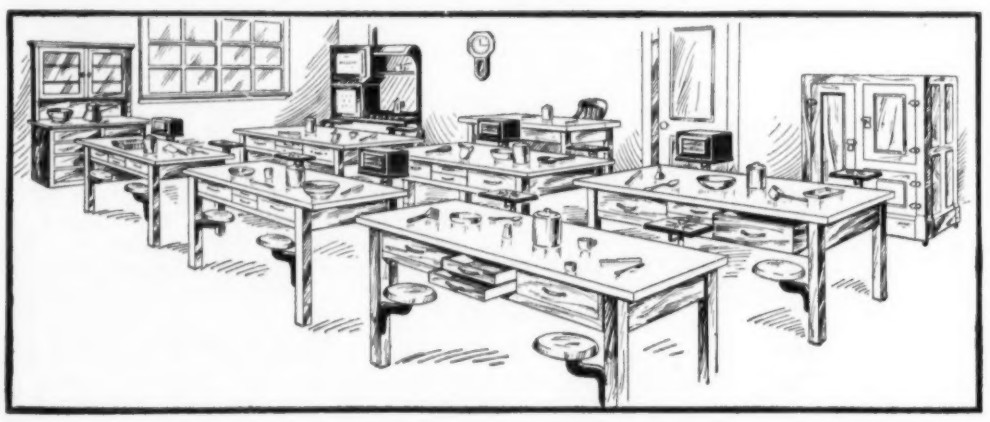

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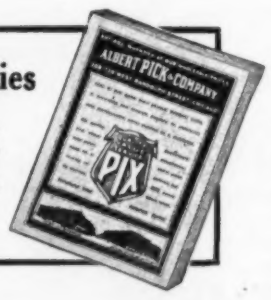

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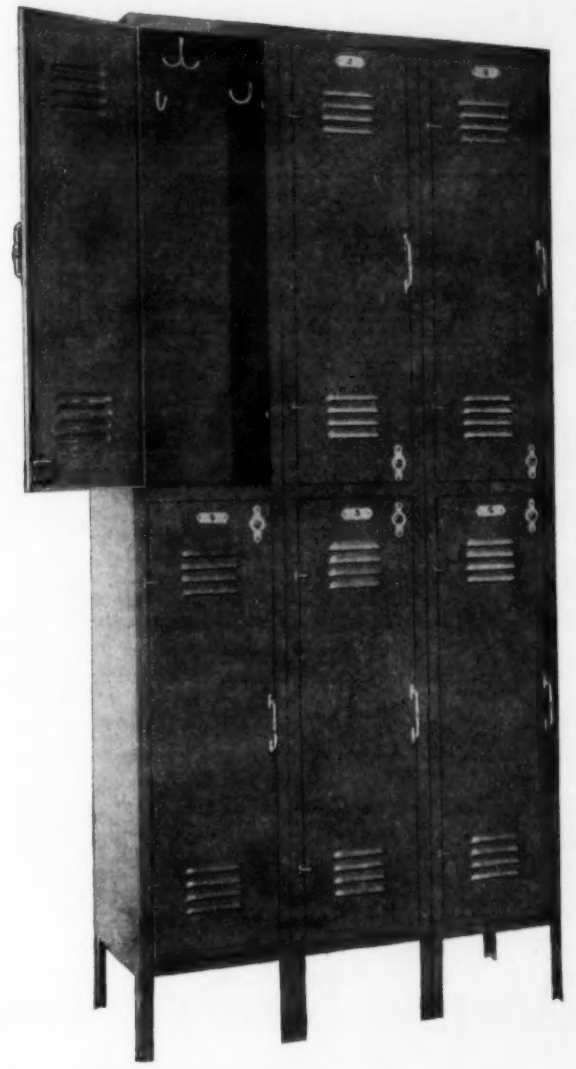

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WAR POLICY OF SECONDARY SCHOOLS.

The Council of National Defense has issued a statement of principles which should guide secondary schools during the war and has added six recommendations for adjusting schools to the rapidly changing economic and social conditions. The document which was drawn up by a special committee of fifteen educators is worth studying.

Preamble.

In the crisis that confronts us the schools of the Nation should have the single thought to serve their country in the best possible way and to the full extent of their resources, not only in the present emergency but in the years to follow.

Present conditions demand a statement of the principles which should guide those responsible for the conduct of secondary education.

Statement of Principles.

We accordingly believe, first, that it is of supreme importance that the educational resources of the Nation, and particularly our great public school systems, shall be maintained as fully and completely as possible, in order that our country may not again go thru the sad experiences following the Civil War, or of some of the nations of Europe at the present time, and that the supply of trained and educated men and women may not be largely cut off during the war and after its close.

We believe, second, that it is highly desirable that our schools and colleges shall furnish during the war a continuous supply of men fitted to take positions of leadership in the army, in the industrial world, and in social service, and that to that end students should be encouraged to continue their training up to the point of greatest efficiency rather than to enter service prematurely.

We believe, third, that the schools should make any changes in their courses of study and methods of instruction that will fit their students to share more effectively in meeting the present crisis and our future needs.

We believe, fourth, that in all schools special emphasis should be laid on instruction in thrift and in the avoidance of waste.

Recommendations.

I. We recommend that the school year be adjusted in each locality so that the schools may serve as effectively as possible both the children and the community at large under the changed conditions brought about by the war.

II. To this end we recommend that in the larger cities and wherever else it may be possible to do so to advantage, the schools be kept open for educational and productive effort during the entire year, not only that children who may be called upon during the part of the year for industrial service may have opportunity to attend school at such times as they are free, but also that the school equipment and teaching force for manual and industrial training and home economics may be available for the instruction of adults.

III. We recommend that in agricultural sections the sessions of secondary schools be so fixed as to permit boys and girls to assist in agricultural operations with the least possible interruption of educational work. In the northern states, where the crop-growing period is short, the summer vacation may be lengthened to include the periods of cultivation and harvesting of food crops. To compensate in part for this extension of the summer vacation, the holiday periods occurring during the school year may be shortened or eliminated. In those parts of the country where planting season begins early and the harvest season ends late, high schools may adjust vacations to coincide with the periods in which extra labor is demanded on the farms. In such cases the full amount of school work may be secured thru mid-summer sessions or as suggested in Recommendation V.

IV. We recommend that every effort be made to employ teachers of agriculture and home economics for the full year, and that their time during the summer months, and such other time as is not needed in school instruction, shall be utilized in supervising productive work of the boys and girls on the farm and in the home.

V. We recommend that school officers take cognizance of the temptation to leave school which will be presented by the offer of high wages in the industrial pursuits. This temptation may in a measure be offset and the children kept under instruction by the organization of the schools wherever feasible on the part-time basis, as in Fitchburg, Cincinnati, and Spartanburg.

VI. We recommend that boys attending secondary schools be advised not to enlist for military or naval service at present or in the immediate future, because the needs of the country will be better served by the assurance of an adequate supply of trained young men in the latter stages of the war and in the industrial reconstruction which must necessarily follow its close.

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Furthermore, we might show elaborate illustrations picturing the effects of Robertson's Soap, but this too would only give you an idea of what our soap might do. Here again, we say a "trial" will convince more than anything we might say.

Write for samples of our Original 20th Century Soap, our Robertson's Disinfectants, our Robertson's Triumph Liquid Soap. We also are manufacturers of Pure Bristle Floor Brushes, Paper Towels, and Toilet Paper. Our 20th Century trademark protects you.

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THE WAR AND THE SCHOOLS.

Rock Island, Ill. A free school of telegraphy has been opened in the Manual Arts School for men and women who desire to fit themselves for war service.

Evanston, Ill. One hour of each day will be given by the grade school pupils to the making of war relief supplies.

Cleveland, O. Classes in French are planned for soldiers who expect to see service in France.

Chicago, Ill. Instruction in wireless telegraphy has been added in the night school course for the benefit of men who enlist in the Signal corps.

Davenport, Ia. Telegraphy will be taught in the evening school course.

Fond du Lac, Wis. Telegraphy will be offered in the schools for men of the United States Signal Corps.

Chicago, Ill. The board of education and the household arts department have co-operated with the Red Cross in the making of supplies for war relief. Boys make wooden knitting needles, roll bandages, fracture pillows and gunwipers. Girls sew and knit. It is also planned to continue the making of ration heaters in the junior auxiliary classes.

School children of Toledo will be organized into a war auxiliary. The children will be divided into working groups, each led by an older person. The groups will meet once a week and the entire auxiliary once a month. Older children will knit. Younger ones will make ration heaters and scrapbooks.

St. Louis, Mo. Plans have been considered for the opening of schools for cooks and bakers in the high schools. The schools are intended to fill vacancies in these lines in army camps. Applicants must pass a physical examination and agree to enlist upon completion of the course.

Muncie, Ind. A school for telegraphers in the United States Signal Corps has been opened in the Muncie High School. Day and night classes will be formed and all work will be of a military character. The course will cover six months' time.

The Allegheny County Teachers' Association which met in September at Pittsburgh, Pa., in a series of recommendations included an appeal for the improvement of education to meet the needs of war and reconstruction. Extensive sewing for the Red Cross was urged.

The Prussian Ministry of Education announced early last August that 10,950 teachers have fallen during the war, and that their places have been taken by women.

Peoria, Ill. A school of telegraphy has been opened for the benefit of young men who desire to enter the military or commercial field.

Boston, Mass. Additional opportunity for enlisted men and men who have applied for commissions, to learn conversational French has been given with the opening of classes at the Boston Public Library. These classes are available for men living outside prescribed army districts.

SPECIAL STUDIES.

Special classes in English are planned for the benefit of several thousand foreign women who are employed in the factories of Illinois. Volunteers will be utilized in the teaching of classes.

The plan of the American Agricultural Cadets will be carried out on a nation-wide scale next year. It is estimated that there are about 2,000,000 school and college boys between the ages of 16 and 21 years who may be utilized in increasing the farm production of the nation. It is planned to have the boys spend five months on the farms under semi-military discipline.

Newton, Mass. A special course in agriculture was offered during the summer at the Vocational School for boys over 14 years of age. The work consisted of practical demonstration and instruction in the care of gardens.

A recent report on the school savings system of Central Falls, R. I., shows that a total of $54,731 has been deposited. The number of depositors has reached 1,253.

Central Falls, R. I. The subcommittee on school gardens has made arrangements for prizes to be awarded at the close of the gardening season to those having the best exhibition of vegetables. Prizes will be given for the best corn, tomatoes, squash, beets, cabbages, carrots, turnips and potatoes. There will be a competition for the best school garden in the state and a prize in the shape of a banner.

Boston, Mass. Classes in citizenship were held during July and August for the benefit of foreigners. Classes were held three evenings each week.

Detroit, Mich. Thru the co-operation of the Continuation Department for Girls and the Board of Commerce, fifty teachers in the schools worked in factories during the vacation. The knowledge gained by them will be used in teaching girls who take the places of men called to war.

Chardon, O. The teaching of German has been eliminated in the elementary schools.

Brockton, Mass. The season of 1917 will yield the largest output of garden products, according to present indications. The fine weather has accomplished wonders in the growth of the crops.

Supt. J. G. Moore of Duluth, Minn., has increased the school savings $1,310 for the year 1916-17. With the exception of two, every one of the schools increased its deposits the past year.

Chicago, Ill. Classes for the instruction of deaf children in lip reading have been established by the board. Classes are held two evenings each week.

Philadelphia, Pa. A new course in English is planned for pupils of grammar grades. The course which has been prepared by Associate Supt. Louis Nusbaum and a committee, gives special attention to oral English in the way of enunciation, fluency and correctness of speech.

The tax levy for school purposes in Seattle, Wash., has been fixed at eight mills, an increase of one mill.

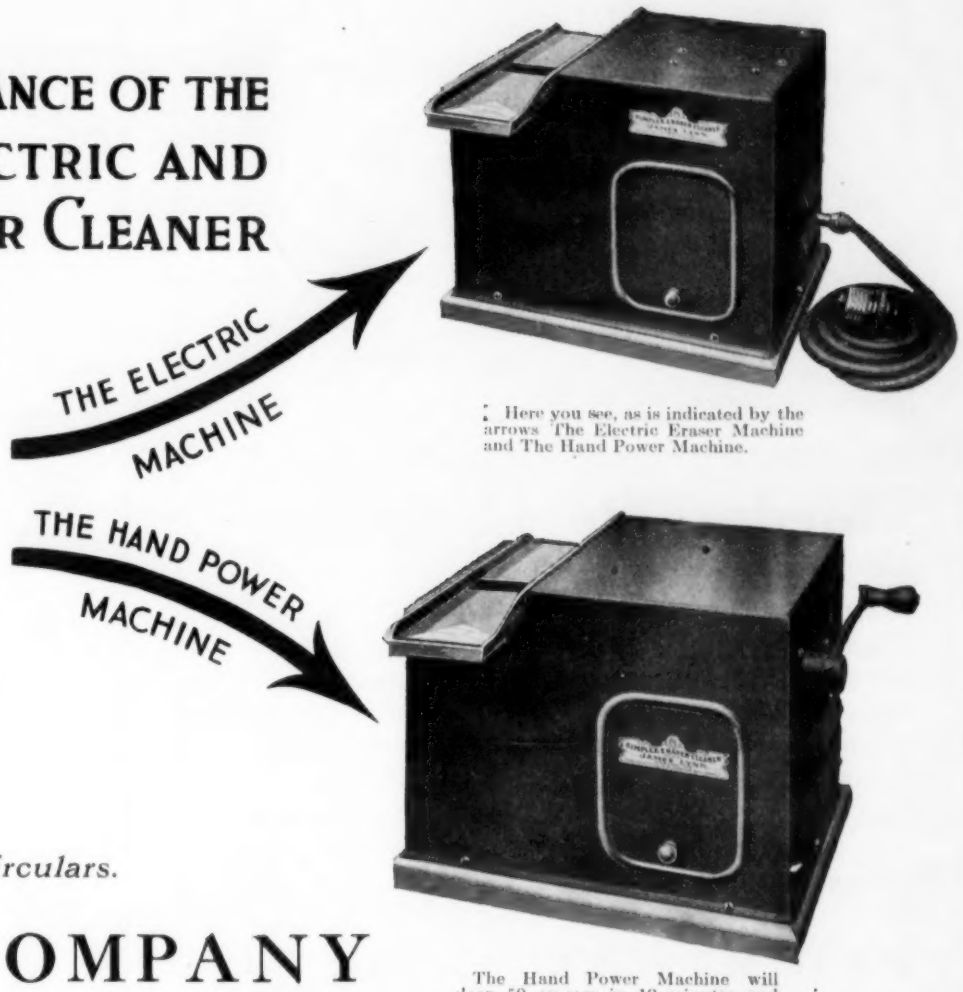
Miss Olive A. Evers, head of Stanley Hall, a private school in Minneapolis, Minn., has suggested that the 75 private schools of the city offer the facilities of their schools at reduced tuition rates to about 1,750 children who cannot be accommodated in the regular public schools. The school authorities face a congestion in the schools and a shortage of fifty teachers necessary to maintain the standard of 35 pupils to a teacher. The suggestion is in line with a warning of the U. S. Bureau of Education that there be no reduction of educational advantages during the period of the war.

A Typical Performance of the New Simplex Electric and Hand Power Eraser Cleaner

Note the Performance of Each

THE ELECTRIC is driven by a Universal Motor of well known make and highest efficiency, which will operate on any and all electric currents. One boy or girl can clean 100 erasers thoroly in 15 minutes without any possibility of injury. This is worth considering especially if you have a large number of erasers which must be cleaned every day, and where electric power can be obtained.

THE HAND POWER is exactly the same as The ELECTRIC with the exception that it is operated by hand instead of electricity. In both machines the cleaning device is made up of a combination of small wire beaters, set between layers of fine bristles, effecting a simultaneous beating and brushing of the eraser. The dust is removed from the folds of the eraser by the aid of a metal suction fan which creates a vacuum and is then carried into the dust bag.



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The Hand Power Machine will clean 50 erasers in 10 minutes and can be operated with ease by the smallest child.

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School Administration

Mansfield, O. Upon the suggestion of the superintendent, the board has ordered that periodic tests by teachers be given in place of the former half-year examinations. A system of alphabetical marking has been adopted as a general marking plan to replace the unsatisfactory per cent marks. The rules governing the change are:

1. The time-honored custom of conducting semester examinations prepared by the superintendent of schools shall be abolished and the responsibility of testing the scholastic standing and progress of pupils shall be placed with the teachers under the strict supervisory control of the principals.

2. At least one informal test in each study shall be given in each six-weeks' term and the test manuscripts carefully marked together with the test questions be kept on file until the beginning of the ensuing school year, these manuscripts to be open to inspection by any interested person.

3. The purpose of these tests shall be to assist the teacher in the formation of an accurate judgment in respect to individual needs, the standing and the progress of pupils, and the quality and efficacy of methods of instruction.

4. The principals shall exercise full supervisory and executive control over the examination of pupils to the end that the plan and purpose of the board of education ordaining this new method of testing pupils shall be fully realized.

Owing to the wide range of variation in the use of the per cent marks by teachers and the impossibility of standardizing the use of those per cent marks there has been adopted a more just and more scientific system as follows:

(1) The system of letters A, B, C, D, F, has been adopted for use as a general marking system and the following definition or interpretation placed on each letter:

A—Shall be used to represent a group of pupils who are exceptionally good or clearly superior in their work.

B—Shall represent a group of pupils who are above the average, but not so good as the A-group.

C—Shall represent a group of pupils doing average work but not so good as the B-group.

D—Shall represent the group of pupils below the average or the group doing just passing work.

F—Shall represent those doing unsatisfactory, or failing work.

(2) A faithful use of this system of marks will prove more accurate, and more in accord with the results of recent scientific investigations of school marks and more satisfactory to parents, pupils and teachers.

Quality of work, school attitude, nature of attendance, possible physical defects and any other valuable information must be submitted to the parents at the close of each six-weeks' term.

(3) The superintendent of schools is authorized to prepare such card in blank and have the same printed.

(4) Upon the receipt of report cards, parents are requested to examine, sign and promptly return them to the teacher.

In the event that parents, at the time of sending out report cards, do not receive them, they will kindly make inquiry at once to the teacher.

Cleveland, O. Supt. Frank E. Spaulding recently presented to the board of education an aggressive and progressive policy of administration which is intended to place the public-school system on a par with the large cities of the country. The plan which has been approved by the board members, provides for the following changes and innovations:

Willingness to try out new educational ideas calculated to meet needs arising from new and different social and economic conditions.

Elimination of red tape in board of education proceedings to make for greater administrative efficiency and to give the superintendent a free hand to carry out his recommendations.

Organization of an educational council of teachers to make possible a systematic plan of co-operation between the superintendent and the teaching body.

Strong efforts to obtain state legislation to relieve shortage of funds handicaping necessary expansion of schools in Cleveland and elsewhere.

Probable establishment at an early date of trades schools.

Dr. Spaulding in addressing the members immediately after the close of the board meeting, said that at the outset of his administration it would be well to have a definite understanding between the board and himself so that it would know in what light to interpret his recommendations.

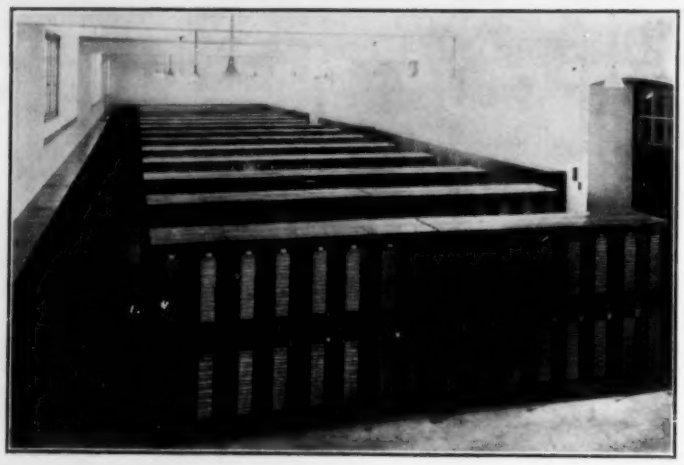
"It is possible to adopt a negative policy," he said, "one that considers all things in the light of traditions.

"I do not believe in such a policy. I believe in one that is aggressive and progressive, one to supply the educational needs of the children as soon as possible."

He indicated that some things had been tried in an experimental way and no further action taken. He referred to the school for crippled children and declared that if experiment had proved its success steps should be taken at once to bring its advantages to all the crippled children of Cleveland and not alone to the few who were permitted to attend it.

Cincinnati, O. Supt. R. J. Condon has appointed a committee of four who will undertake a censorship of German textbooks used in the schools. According to Supt. Condon, English as well as German textbooks abound with matter which in wartime might be construed as objectionable. Texts in both languages will be studied in turn by committees whose membership has the confidence of school authorities.

Supt. B. B. Jackson of Minneapolis has announced the completion of assignments for the supervisory corps. George F. Womrath will be in charge of business affairs; W. F. Webster in charge of seventh and eighth grades; J. N. Greer in charge of industrial work; Miss Elizabeth



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They bought Medart lockers because they considered them the best suited for their use.

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Hall in charge of kindergartens and the six lower grades in three districts; Miss Katherine Pope will have charge of the kindergartens and six lower grades in two districts and the subnormal classes in all buildings. Former Supt. C. M. Jordan will assist in general supervision, including the work of evening schools.

New York, N. Y. The public schools opened the fall term with an estimated attendance of 844,000, an increase of 15,000 over last year. Twenty-four schools are operated on the duplicate plan and 25 more are planned in the near future.

Newark, N. J. The school board has witnessed a distinct triumph in the elimination of part-time classes and the assurance that each pupil will have been provided with full two sessions a day. The change has been made possible thru the operation of alternate class schools and the conduct of all-year schools.

TEACHERS AND ADMINISTRATION.

Buffalo, N. Y. The board has introduced a course in kindergarten training for prospective teachers who desire to prepare for work in this line. Each student will pursue a two-year course in actual teaching methods and upon completion of the course will be given a diploma by the city and a certificate by the state. It is also planned to continue the usual two-year course for primary and grammar grade teachers.

Cincinnati, O. Under a new rule of the board, applicants for teachers' certificates are required to pass a physical examination. The rule is intended to reduce loss of time thru sickness.

State Supt. T. H. Harris of Louisiana has announced that hereafter contract jumping by teachers will be severely dealt with. Teachers who break their contracts, without the consent of the parish superintendent, will face the cancellation of their certificates and the loss of their positions. Supt. Harris in his communication to parish superintendents, says that "not very many do this thing, but there are always some who contract for a place in the spring and spend the rest of the time looking for another place, and at the last moment notify the superintendent that they have decided not to accept the position."

In his recent annual report, State Supt. Fred Keeler of Michigan shows that $12,702,856 are expended for teachers' salaries. The average salary paid to the male teacher last year was $90.22 per month, while the average paid to the female teachers was $61.86. The public schools employ 20,979 teachers and the parochial schools 441 teachers.

Teachers in the Columbus schools do not have a soft, easy time, according to a report of the survey committee which recently studied the school system. One teacher in replying to the questionnaire said she averaged twelve hours of work during the past year. In addition to teaching, self-preparation and correcting pupils' work, this teacher attended 34 teachers' meetings, 32 of which had a direct bearing on her work. Teachers are compelled to give much of their time to pupils in the way of hikes and other athletic training, as well as for school clubs and literary societies, in addition to their regular pedagogical work.

The committee recommends that principals who are compelled to do social work in school districts, particularly in sections where the parents are less favored by fortune, be relieved of teaching duties. There is much to be done in the way of private calls and this takes up much time.

Altoona, Pa. The board has retained married women teachers whose husbands have been accepted for army service.

Wilkesbarre, Pa. The board has reappointed two women teachers who married since the close of the last school term. This is the first time that a teacher whose husband is alive, has been permitted to go on with her work.

Philadelphia, Pa. In accordance with a rule adopted last July, the board has removed the names of five teachers from the regular teaching faculty because they have failed, neglected or refused to declare any intention of becoming citizens of the United States. Of the 47 cases of non-citizenship discovered by the census, all but these five declared their intention of becoming citizens.

Pasadena, Cal. The board has adopted a salary schedule for principals of schools. The scale runs from $1,125 for one-room schools to $2,360 for 24-room schools.

The schedule provides for the following:

Teachers acting as vice-principals will receive $100 above the maximum salary for grade teachers.

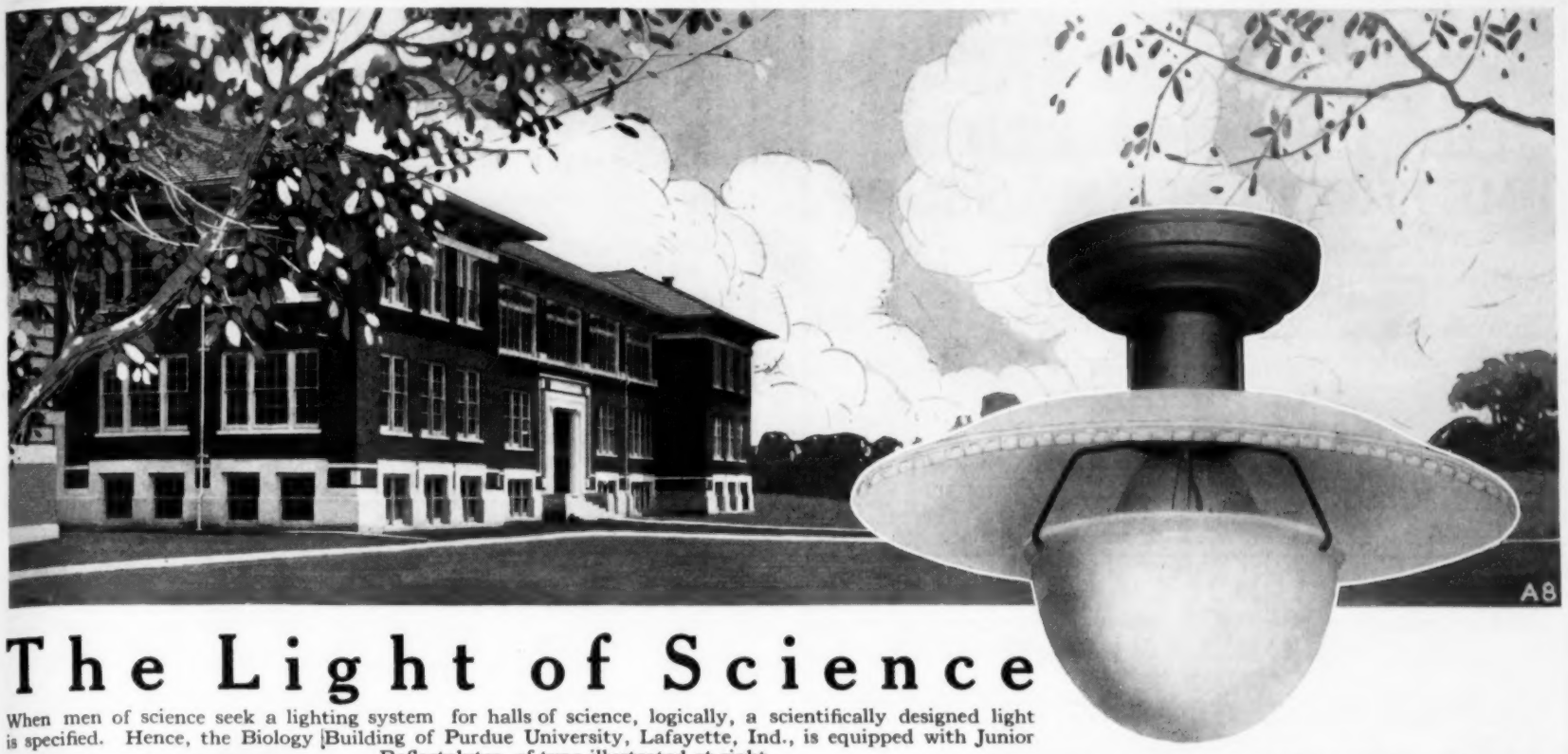
The principal's salary for a one-room school will be $1,125; two-room $1,200; three-room $1,250; four-room $1,350; five-room $1,450; six-room $1,600; seven-room $1,700; eight-room $1,800; nine-room $1,835; ten-room $1,870; eleven-room $1,905; twelve-room $1,940; thirteen-room $1,975; fourteen-room $2,010; fifteen-room $2,045; sixteen-room $2,085; seventeen-room $2,115; eighteen-room $2,150; nineteen-room, $2,185; twenty-room $2,220; twenty-one-room $2,255; twenty-two-room $2,290; twenty-three-room $2,325; twenty-four-room $2,360.

Further increases of $35 per room will be given up to thirty rooms, after which a fixed maximum of $2,600 will be allowed.

Grand Rapids, Mich. The board has ruled that teachers and employes who obtain commissions in the army shall retain their positions until such a time as they may return to them.

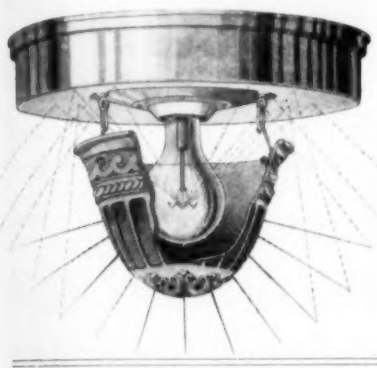
The school board of Philadelphia has recently settled a controversy over the question of compensation for teachers who are serving in some branch of the military service. The board has ruled that full compensation will be given only in cases where the pay in the service, plus the provision allowed dependents, is less than the salary received as a teacher.

The difficulty arose thru a conflict in carrying out the provisions of two different rulings. The board in April last ruled that teachers in the army should receive the difference between their army pay and their salaries as teachers. The Pennsylvania legislature, subsequent to the rule, passed a law providing that one-half of the salary of teacher, not exceeding $2,000, should be paid during service in the army. This resulted in some presenting claims under the legislative act and others under the board ruling, high-salaried men preferring to make claims under the former because it yielded more income.



The Light of Science

When men of science seek a lighting system for halls of science, logically, a scientifically designed light is specified. Hence, the Biology Building of Purdue University, Lafayette, Ind., is equipped with Junior Reflectolytes, of type illustrated at right.



These units are designed to reflect and diffuse a flood of uniform, soft, pleasing white light to desk and table level, insuring absolute eye comfort. Reflector is of depolished white opal glass, toughened by an annealing process, to a remarkable degree of durability. Breakage in position, is practically impossible.

All standard Reflectolytes (illustrated at left) are guaranteed for twenty-five years of fully efficient service. Reflectors are of one-piece heavy pressed steel with pure white porcelain enamel *fused on* for permanence. Unaffected by heat of most powerful high-intensity lamp. Will not peel off or discolor as does surface of ordinary painted reflector. Many styles and sizes. Brass rim plain or ornamental; handsome translucent blown glass bowl; easily cleaned.

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For dark days and evening classes in Elementary and High Schools, there is need of the clear, shadowless "artificial daylight" of Reflectolyte units.

Reflectolytes for the school auditorium to fit any decorative scheme. Special type (with wire guard) for gymnasium.

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Book Reviews

The Beacon Fourth Reader.

By James H. Fassett; with illustrations by Charles Copeland. Cloth, 314 pages. Price, 64 cents. Ginn and Company, Boston.

The name of this series implies that light is to be given upon some subject. A folder states that a simple but rational system of phonics is developed in this series. It is claimed the use of this system helps children in spelling, in pronunciation, in intelligent reading. A large claim. A phonetic chart and a reading chart are essential aids.

Whatever may or may not be true of the merits of this system, the variety and fine literary quality of the selections in this "Fourth Reader" merit little but praise.

Elson's Spelling Book.

By William H. Elson and Sarah A. Haste. Cloth, 282 pages. B. D. Berry Company, Chicago, Ill.

An unusual spelling book, also an unusually promising spelling book.

Its feature of features is the spelling of words in everyday use and constant repetition of the few hundred words commonly misspelled. On these few hundred words and a few dozen types steady drill should be laid. Other good features are: indication of pronunciation by a few simple symbols, syllabication and marking of accent, definitely planned lessons convenient for assignment. It is worth mentioning that each advanced lesson contains but nine words—three of these, by reason of phonetic difficulty, are emphasized in heavy type for special study. Reviews come every week, every month; contests every half year.

Spelling of everyday words, correct pronunciation, drill upon words commonly misspelled, are constantly kept in mind.

Spanish Reader of South American History.

By Edward Watson Supple. 375 pages; illustrated. Price $1. The Macmillan Company, New York.

So large a portion of Spanish are modified forms of Latin roots, a Latin scholar has a marked advantage in studying Spanish over one who knows only the English language. Roman occupancy of the Iberian peninsula left a permanent impress upon people and language. No wonder Spaniards are called Latins.

"In this reader are nine selections from the works of Latin-American authors of literary eminence. They represent in almost chronological order some of the best known episodes in the history of South America, from the periods of the Conquistadores down to the present day." The career of Vasco Núnez de Balboa, of the sixteenth century is the subject of the first selection; the building of the Panama Canal, in the twentieth century, that of the last selection. A careful reader will gain valuable historical facts relating to the four hundred years in which Spaniards have occupied the great continent, but will gain what is more valuable, a sense of the attitude of Latin-Americans towards their past.

These selections have been divided into 42 lessons. Exercises for oral and written work are based upon these lessons. First come a few questions in Spanish, calling for answers in the same language. Then follows a paragraph in English, of about one hundred words, to be translated into Spanish. All necessary words and phrases may be found in the preceding pages. The notes deal mainly with the niceties of grammatical construction. Eight maps are proof of the author's good judgment.

Oral and Written English.

Book Two. By Milton C. Potter, H. Jeschke and Harry O. Gillet. Cloth, 420 pages. Price, 64 cents. Ginn and Company, Boston.

In Book Two as in Book One, which was noticed in the August number of the SCHOOL BOARD JOURNAL, "the text is based upon the principle that if results of value are to be achieved in the teaching of English, children must enjoy their work." These results are to be gained, not by making work *easy*, but by so presenting it that children feel they need what the school is trying to give them.

The grammar lessons are immediately usable. A good deal of class criticism and correction is planned for and encouraged. Lists of good subjects for both oral and written work, lists of words often mispronounced, correction of gross errors, drill in correct usage, letters of many sorts—friendship, complaint, inquiry, protest—are among the characteristic and practical points.

Given motive power, in teachers having common sense, effective work may be done with this book.

The Boys' Camp Manual.

By Charles K. Taylor, 40 illustrations. Cloth, 236 pages. Price $1.25. The Century Company, New York, N. Y.

Tho "The Boys Camp Manual" is written for a camp of 100 or more, in camp for an entire season, many details are very good for a much smaller number, in camp for only a few weeks.

In writing of camp organization, careful selection of site, erection of buildings, making furniture, it would seem nothing had been forgotten. A remarkably complete book. The author thinks it a mistake to bring boys and young men into a camp already prepared. With sufficient directions—this book gives full directions for much of this work—they should put up their own tents, make their own canvas cots, in larger camps put up their buildings and make their furniture. Such work develops resourcefulness and an all-round handiness. The system of physical training given here may be used in schools and even by clubs of boys. Its special excellence is that it takes individual differences into account. As might be expected from the subtitle "A Handbook of Military and All-Round Training," the chapters on "Formal Military Drill," "Signaling," "Field and Other Exercises," form fully half the contents.

The book is dedicated to Major General Leonard Wood who has written a foreword of appreciation for this manual and for the author's life-work in this direction.

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Towards an Enduring Peace.

By Randolph S. Bourne, with an introduction by Franklin H. Giddings. 336 pages. American Association for International Conciliation, New York.

With the world in the grip of terrible warfare wise men and women are looking towards an enduring peace. This list of authors is a notable one; their opinions command respect, if not approval.

Some of these writers saw more than three years ago that the nervous eagerness of nations pushing their way commercially into the domains of the backward peoples was developing an intense rivalry. The tension became too strong for diplomacy; war broke out; war is still in progress. A discussion of the general principles of settlement, economic and political, is followed by more concrete suggestions for the constitution of a definite league of peace. Definite programs for peace by associations and organizations in our own country and European countries can be here studied and compared.

Men and women, famous at home and abroad, have presented some reconstructive ideals. May this suggestion of one of this number, "Peace should be established not upon the basis of victorious nations alone, nor even upon the combined interests of victors and vanquished, but upon the basis of the future welfare of all peoples," become a fact.

The Science of Human Nature.

By W. H. Pyle. Cloth, 229 pages. Price $1.25. Silver, Burdett & Company, New York, N. Y.

The author of this book belongs to the school of psychology which denies in effect the existence of a soul in man and which holds up social morality as the only morality. The chapter on applied psychology is excellent.

The Peasant and the Prince.

By Harriet Martineau. Edited by Sara Cone Bryant. 12 mo. cloth, 298 pages; illustrated. Price, 48 cents. Ginn and Company, Boston, New York, Chicago.

This child classic will always be a favorite for school as well as home reading. The present edition gains much from Mrs. Bryant's skil ful editing.

Public Secondary Education.

By Calvin Olin Davis. Cloth, 270 pages. Rand McNally & Company, Chicago, New York.

The title of this book should be "Public Secondary Education in Michigan" for with the exception of a few chapters on early secondary schools, it is entirely devoted to the rise and growth of the academies, and later the high schools in the Wolverine state. The book is valuable as an accurate picture of educational history in one of the great states.

Rational Typewriting.

Revised Edition. By Ida M. Cutter and Rupert P. So Relle. Cloth, 186 pages. Price, $1. Gregg Publishing Co., New York, Chicago.

This edition of Gregg's well known typewriting manual has been revised and rearranged to meet the especial needs of high schools which can devote one period daily for two years to typewriting practice. Teachers whose classes can devote only six months to the work will find it readily possible to cover the entire range of exercises by making judicious omissions.

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The Home and Its Management.

By Mabel H. Kittredge. Cloth, 385 pages. Price, $1.50. The Century Co., New York.

This book emphasizes economy and hygiene as the two most important elements in household management. It is written from the standpoint of a social worker who is intimately familiar with thousands of homes in New York City and who knows exactly the points which are most difficult for the average wife and mother. The recipes in the final section have been widely tried out. The book will appeal to teachers of domestic science as a valuable desk and reference work.

Minimum Spanish Grammar.

By Prof. C. Fontaine. Cloth, 120 pages. Wm. R. Jenkins Co., New York, N. Y.

Only the bare essentials of the Spanish language are here presented for the use of high school and college students. The exercises are well graded and the difficulties of the subjunctive mood are clearly presented.

An Experiment in Fundamentals.

By Prof. C. D. Mead. Paper, 68 pages. Price, $0.60. World Book Co., Yonkers, N. Y., Chicago.

This book presents the results obtained from a careful application of the Courtis Standard Practice Tests and the Thompson Minimum Essentials in Arithmetic to two equal groups of children in the fifth grade of the Cincinnati schools.

The results of the test are valuable not only for the compact summary and the complete charts and tables which superintendents may use as a basis for similar tests, but also for the resulting scientific comparison of two leading "Scientific Tests." The book is concrete evidence of the value of standardized practice and test material.

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Arithmetic Tests and Studies in the Psychology of Arithmetic.

By George S. Counts. 127 pages. $0.75. University of Chicago Press, Chicago.

A valuable study of the results obtained from the application of the Courtis tests in 834 classes in the schools of Cleveland and Grand Rapids. The author has worked out the types of errors which children make in the tests and shows that there is a distinct relation between age and success in arithmetic.

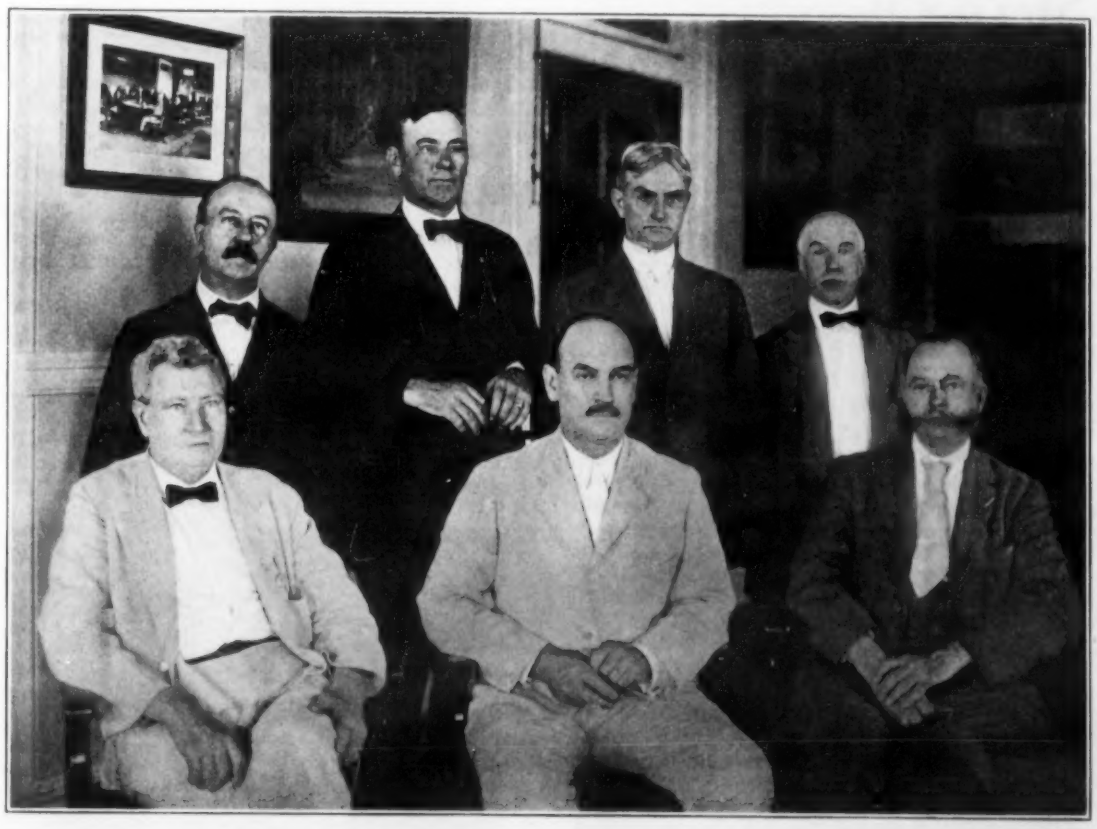
PUBLICATIONS.

Child Accounting for the Schools of Kane, Pa., June, 1917. H. O. Dietrich, Supt. This pamphlet is a study of the age and grade progress of pupils in the grades and high school. The number of withdrawals by grades are shown, together with the number of promotions and non-promotions. Seven tables are given: Table I, total enrollment by sex for each grade and for system, ages by sex for each grade, percentages according to sex for each group by grades and totals. Table II, Number of years of schooling by sex and grades, average progress and number of boys and girls of normal, rapid or slow progress for each group, by grades. Table III, Number of children making rapid, slow or normal progress, with percentages for each group. Table IV, Children according to sex, who withdrew from school by grades. Table V, Attendance for each building. Table VI, Number enrolled, promoted, not promoted and quit by grades and buildings. Table VII, Same as former, but for high school.

Second Annual Report of the Globe City Schools, Globe, Ariz., June, 1917. Walter P. Bland, Supt.

The Double Tower Stairway. James R. Young, insurance commissioner and ex-officio fire marshal of North Carolina. There are many other uses and advantages of the double tower stairways that may be given or will readily occur to anyone. The subject needs to be studied to make an impression and gain a hold upon the mind. Mr. Young believes that no other plan will give absolute safety to the inmates of state institutions as well as to the children and students in schools and colleges. He shows that they are making progress in North Carolina in the erection of this safe class of school buildings.

Ironwood, Mich. A bonus of twenty per cent has been granted to the entire teaching staff for the year 1917-18. The board's action includes the superintendent of schools, the high school principal and clerical corps and means an additional levy of $16,710 for teachers' salaries.



THE NEW FEDERAL BOARD OF VOCATIONAL EDUCATION.

The Board will administer the law providing for federal cooperation with the states in establishing and maintaining vocational, continuation and agricultural schools. About $1,500,000 will be expended the first year.

Standing (left to right) A. E. Holder, Chas. A. Greathouse, P. P. Claxton, James P. Munroe. Sitting (left to right) Wm. B. Wilson, Secretary of Labor, David F. Houston, Secretary of Agriculture, (Chairman) Wm. C. Redfield, Secretary of Commerce

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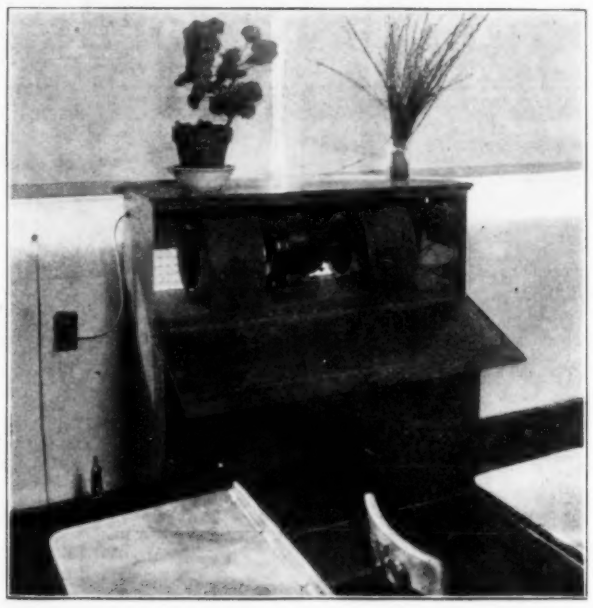

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NEW VICTOR RECORDS.

The Victor Talking Machine Co., of Camden, N. J., has just issued a new catalog of Victor records for the month of August.

The catalog contains records, for instrumental, dance, and vocal purposes and reproduces the works of Caruso, Homer, Paderewski, Kreisler, McCormack, and others. The subjects which include, patriotic, fireside, and popular airs are suitable for use in connection with school work.

Copies of the catalog may be obtained by addressing the Victor Talking Machine Company at Camden, N. J.

NEW CHANNON CATALOG.

School boards purchase a large variety of articles for constant use than any other single kind of public body which has the administration of one branch of local public service. In fact modern schools which necessarily include manual arts, domestic science, medical inspection, science, and similar departments are in the market for types of supplies used by such widely different types of institutions as hospitals and automobile repair shops. The school-board secretary as a purchasing agent must be a jack-of-all-trades.

The wide scope of school board purchases makes the type of service rendered by a firm like H. Channon Company, Chicago, especially valuable. This house has for forty years carried a general line of machinery tools and general supplies for the manufacturing industries, selling everything from curtain tacks to locomotives. Its newest Catalog No. 80 is a genuine compendium of machinery and tools, and lists in 1,150 pages nearly ten thousand distinct articles. To the school-board secretary the catalog will be a genuine desk reference book for janitors' and engineers' supplies, mechanical equipment, manual training furniture, machinery and tools, etc.

In an unsettled time like the present, "Channon" service is especially valuable, since practically every item in the catalog is carried in stock and may be supplied immediately.

Interested school officers may obtain copies by addressing the School Department of H. Channon Company, Market and Randolph Sts., Chicago.

A NEW FIRE ALARM SYSTEM.

School authorities who have contemplated the installation of fire signal systems in the school buildings have been able to choose either very expensive, complicated systems similar to those used by fire departments or very cheap, unreliable outfits which are frequently useless when they are most needed—in cases of emergency.

There has been a decided demand for fire alarm systems which are midway between these two extremes and which are reliable and, at the same time, within the reach of the average school treasury. The Standard Electric Time Company has recently perfected a system which it is claimed meets these two important requirements, dependability and low cost.

Master Selector Box "Standard" Electric Fire Signal System.

The "Standard" electric fire alarm system is exceedingly simple and is composed of elements which have been found thoroly reliable during years of actual use under school conditions. It consists of a master selector box made of wood or metal, to be located in the principal's office, a wire system and alarm stations and bells to be located in the corridors in various parts of the school building. The master box is fitted with a special self-winding relay, which gives a definite signal of any desired code and which is commonly furnished to give the widely used "2-3" fire signal. The master box is arranged to repeat this signal three times or, if desired, to continue it indefinitely until shut off.

Any form of signal can be used but the makers recommend single stroke bells or horns which will not be confused with the vibrating bells used for class signals. As a rule, the signal bells are placed in the corridors and in the basement and the alarm stations which are fitted with push buttons or break-glass boxes, are placed immediately underneath. The master box has a test key by which the equipment can be tried out periodically or can be used for the purpose of fire drills.

The equipment can be operated either from a special storage battery or can be connected if desired with the storage battery of the program clock system. This latter feature is a great advantage, particularly since it makes the fire alarm dependent on batteries which are used daily and which can be depended upon to be in good order at all times.

The Standard Electric Time Company has prepared descriptive matter and will be pleased to furnish any reader of the JOURNAL with full information concerning the new standard system. Readers are advised to get in touch with the nearest office of the firm.

Economic Conditions Demand Teaching of Thrift in Schools

THERE IS NO QUESTION

A WORLD-WIDE NEED FOR THRIFT teaching in the American schools actually exists and the National Education Association now proposes that it shall be added to the regular school curricula.

The wasteful tendency of the American people in the past must give way to a policy of conservation through a better understanding of thrift.

The American youth must be taught to Waste not of Time, Money or Materials. Then shall he know the meaning of "thrift."

Thrift finds its first demonstration in the possession of a savings account. Therefore, a practical plan of handling small savings in our schools is of vital importance. But, what of its administration?

A prominent educator recently said:

"While the school can assist very greatly in impressing children with the desirability of saving and encouraging them to save, there is very grave question whether the responsibility of teaching thrift should be put upon the teacher and the school authorities. If the teacher and school can be relieved of the responsibility for the reception and care of money saved and deposited by the pupils, then sentiment favoring economy and the accumulation of a savings account easily can be promoted by the school without departing from its authorized functions."

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MEDICAL INSPECTION.

Tuberculosis in the Boston public schools is on the decline, according to Dr. William Devine, Director of Medical Inspection. The decrease is attributed to the efficiency of the medical inspectors and school nurses.

Sheboygan, Wis. A school nurse has been appointed.

Minneapolis, Minn. Further development of dental inspection and service offered in the schools has been planned thru the co-operation of the board and the professional men of the city. The city hospital has offered the use of its dental dispensary for the treatment of children's teeth.

Chicago, Ill. Previous to the opening of the school term, each child was required to report to the family physican for examination. A report blank was prepared by the physician to be presented to the room teacher.

West Springfield, Mass. A full-time dentist has been employed to take charge of the dental clinic. Formerly the clinic work was done by volunteer dentists.

Sioux City, Ia. An open air school has been established for pupils afflicted with tuberculosis and anaemia.

An interesting report on physical education work has been issued by Director William H. Fountain at Oil City, Pa. In addition to the regular classes for pupils of the Junior High School, Mr. Fountain conducts regular classes from 4:00 to 6:00 P. M., on Monday evenings for lady teachers of the city and on Tuesday evenings for men teachers. He has classes for Junior girls from the Senior High School on Wednesday evenings, for the Senior girls of the Senior High School on Thursday evenings and for the Business Women's Club on Thursday evening from 7:30 to 9:30, as well as special work in classes and smaller groups.

Harrisburg, Pa. The board has adopted plans for the erection of an open air school for sickly children. The estimated cost of the school will be $35,000.

Pekin, Ill. Pupils of the public schools are required to undergo medical examinations at the beginning of each semester. A school nurse has been employed to work with the inspectors.

Boston, Mass. Military training has been eliminated as a means of physical development.

The Iowa University Survey Commission which has just completed a study of the hygiene of the school children and sanitation of school buildings at Wapella, Ia., has recommended the employment of a woman physician to supervise the health of school children. The survey which is the first of its kind in the state, represents the results of a typical Iowa town and the findings and recommendations are state-wide in application and of great value to school and health authorities.

Grand Forks, N. D. The board has employed a school nurse.

Norfolk, Va. The board has employed an additional school nurse.

THE IDEAL TEACHER.

"She should not be a dyspeptic, for child life as well as plant life, is injured by sudden climatic changes; she should not be a grouch, for the learning progress should be a pleasure; she should not be unkind, if kindness she expects to teach; she should not be selfish, for the work of the teacher is unselfishness; she should not discipline father or mother, no matter how much they need it, thru the child; she should not, in her class, permit the thought of compensation to influence her efforts in behalf of the child; she should not consider subject matter more important than childhood, womanhood or manhood. She should have as a basis, a sufficient education and knowledge and understanding of and abundant love for child life. She should have vigor and hope; faith and humanity; sympathy and willingness to reach down and lift up; belief that her work is important and far reaching, and, seek improvement, not for salary increase or advancement, but that she may be the better teacher."—*Supt. B. B. Jackson, Minneapolis, Minn.*

PERSONAL NEWS.

Supt. Gilman Hall of Barrington, N. H., died September 8th at a Dover Hospital. He was 76 years of age.

S. E. Hargis, of Litchfield, Minn., has been elected superintendent of schools at Brookings, S. D. Mr. Hargis is a graduate of Ottawa (Kans.) University, Chicago University and Teachers College, Columbia University. He has served as principal and superintendent in three Minnesota towns.

E. E. McClellan, recently elected superintendent of the schools of Lanier Township, near Eaton, O., has been drafted and accepted for the national army.

Mr. H. H. Baish, formerly Superintendent of Schools, at Altoona, Pa., has been appointed chief clerk of the United States Bureau of Education, at Washington, D. C. Mr. Baish will have special charge of the compilation of statistics and general reports submitted to the Bureau of Education for the Commissioner's annual survey of education.

The Joke Was On Himself.

Helping in the enforcement of laws is not always pleasant as the experience of Supt. H. E. Wolfe of Fairmont, Minn., proves. Supt. Wolfe left his home one fine August morning, and on the train to St. Paul saw a man hand a bottle of liquor to two soldiers. As a patriotic citizen and a strong advocate of obedience of law, he reported the happening to the conductor. When the train reached St. Paul at about 9:30 o'clock a squad of police was waiting on the platform and the disperser of drinks and the two Sammies from Fort Snelling were taken into custody. Mr. Wolfe was obliged to accompany them to the Ramsey county jail and was—to put it mildly—chagrined when the sheriff insisted upon locking him up as a witness.

"We are not taking any chances on our witnesses giving us the slip" said the turnkey who assigned Mr. Wolfe to cell No. 23.

Not until nearly five hours later was Mr. Wolfe released. While he admitted that he did not exactly relish the experience while it lasted, he enjoyed the full humor of the situation as well as the opportunity to put into practice the precepts of good citizenship which he preaches to his students.

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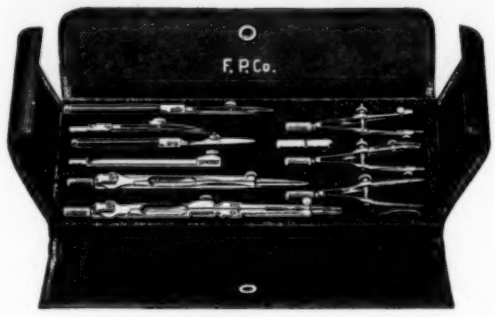

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SCHOOLHOUSE HEATING AND VENTILATION.

(Continued from Page 28)

be insured by a minimum allotment of floor and air space to each person and a quantitative minimum air supply requirement per occupant, provided also that thoroly uniform distribution be accomplished without drafts. Anemometer and carbon dioxide tests represent the best simple, practicable means available for determining the quantity and quality of air supply and its distribution. Where a gravity system of air circulation is installed, the proportioning of radiating surface and air ducts should be such as to secure full compliance with the ventilating requirements with a temperature difference of 40 degrees F. between the outside air and that entering the room at a warm air inlet, with a room temperature of 70 degrees F.

Special provision should be made for the ventilation of cellars, toilet rooms, locker rooms, and all special service rooms. Suction or exhaust ventilating devices should be provided in all laboratories or other rooms where gases, fumes and other impurities or injurious substances are liable to contaminate the air.

d. *Humidity.* On calm, sultry days in summer, the disagreeable sensations experienced are similar in quality, if not in degree, to those experienced in any poorly ventilated room. Air stagnation forms an atmosphere covering about our bodies which affects their heat conditions, and that the discomfiture outdoors in summer is less is probably due to the fact that even the most stagnant, humid atmosphere out of doors is stirred by some slight breeze. However, it must be admitted that excessively humid air, especially if accompanied by high temperature is extremely uncomfortable, and for that reason, if no other, is to be avoided. On the other hand, a very dry atmosphere abstracts moisture from the body as well as from the mucous membranes of the nose, mouth, throat, and air passages of those occupying the room. To keep the body warm under these conditions of excessive dryness the air must be hotter than it otherwise should be, the skin becomes flushed and other symptoms of ill-ventilation are developed.

The positive regulation of humidity is a most difficult undertaking under any conditions, but these difficulties can be greatly reduced, where an air washer is used, by the simple expedient of partial recirculation. With such operation, since all air is not discharged from the building, moisture is retained, and a great rise of temperature not being required, the humidity will not undergo extreme variations and can be prevented from increasing materially by varying the supply of outside air. While many experimenters are prepared to defend the practice of complete recirculation, such a step is considered too novel and radical for adoption in school buildings, and recirculation is not insistently recommended even as an assistance in securing humidity control.

Wherever possible the relative humidity should be controlled between the limits of 35 to 50 per cent.

III. Cost.

a. *Initial and Maintenance Costs.* Reasonable cost may be defined as an expenditure comparable with the cost of other component parts of the building and its equipment, and should be in proportion to the demands and financial ability of the school community. It is manifestly unreasonable and unwise to expect the school authorities in a given case to expend large sums of money in the installation of elaborate and complicated heating equipment for comparatively small and inexpensive buildings which, within themselves as "school buildings," meet every requirement of the community.

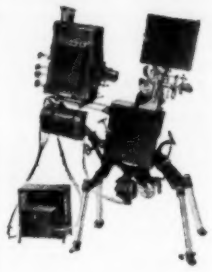
Neither can the all too frequent present practice of installing cheap and untrustworthy apparatus of inferior design and workmanship, in an honest or alleged effort to comply with the letter of the law, be commended. Such a practice not only leads to high operating expenses, frequent repair bills, interruption in service and generally unsatisfactory results, but thru these and other factors, in all probability, will effect actual harm and injury to school children in the very thing which all regulating measures try to correct. The experience of others in the maintenance and repairs of any system should be sought before it is installed.

While seldom of any great consequence, in rare cases, the amount of space occupied by heating equipment, which might well be used for other purposes, may be a determining factor in selecting a system and may well be included under initial and maintenance costs.

b. Operating Cost.

I. *Fuel.* Operating costs can be broadly classed as fuel, power and labor. Much will depend upon the design of the equipment but with equally well proportioned apparatus, and like temperature conditions, the fuel cost will increase with the percentage of outside air admitted for ventilating purposes. Other things being equal, the more direct the contact of the cold air with the heating surface and the higher its velocity, consistent with the prevention of drafts, the greater the fuel economy. Thus a direct-indirect system should require less fuel than will be required where reliance is placed entirely upon open windows, thereby partially, if not wholly, making up for the difference in first cost. In general, a forced air circulating system should prove more economical than other indirect methods, and altho direct radiation without ventilation will cost the least possible amount for fuel, it is attended with a probable increase in physicians' fees for the pupils.

II. *Power.* Power, considered apart from fuel cost for heating, may be high or low in cost



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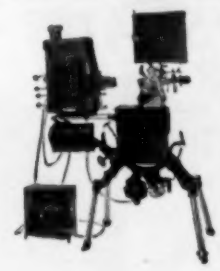

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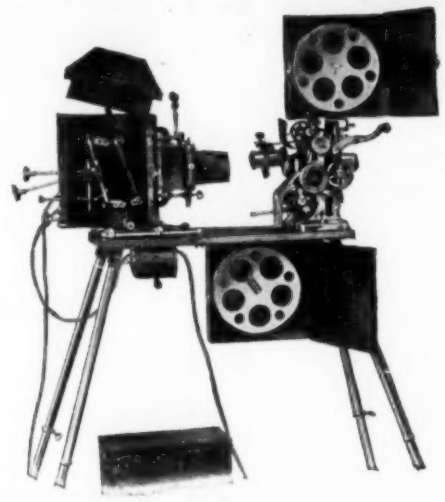

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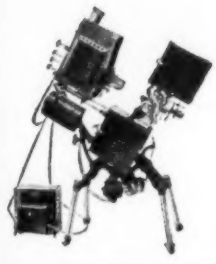

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and easy or difficult to obtain, according to location of school and type of system installed. Where electric current is available an electric motor, owing to its ease of operation, presents the best solution of the power problem, and simplifies the problem of janitor service. A low pressure steam engine in connection with a steam system represents the next best practice and should be resorted to if electric current is not to be had and a forced ventilation system is still desirable. The cost of operation with a steam engine is particularly low since the exhaust from the engine is available as a heating medium. This economy is, of course, not secured with a gasoline engine. In fact, little can be said in favor of the gasoline engine except its low first cost, and its disadvantages can best be explained by those who have attempted to use the method.

While the installation of a power driven plant must necessarily call for a greater investment, it is not an uncommon experience to find that the saving in fuel for heating, over that of the open window method, is sufficient to largely counteract the interest and depreciation on higher first cost.

III. *Labor.* Too much cannot be said in favor of employing caretakers, janitors, engineers and firemen who are intelligent, skillful and competent in the performance of their duties. These men for all classes of school buildings should be selected on account of their special fitness for their positions, should be thoroly instructed in their duties, and should be given pay commensurate with their responsibilities and ability. There can be no greater mistake than to permit the abuse of valuable public property thru the employment of incompetent and irresponsible caretakers, just because such persons can be had for low wages.

Where complicated mechanical heating, ventilating and air conditioning apparatus is installed, with or without automatic thermostatic regulation, an engineer, sufficiently expert to operate and keep in repair these devices, should be employed.

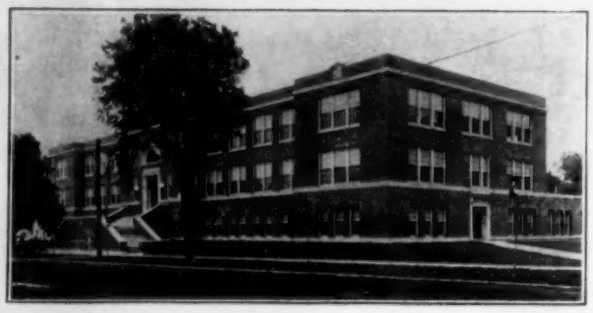
IV. *Safety.* If competent caretakers for the equipment of school buildings should be provided as a proper precaution against loss by rapid deterioration, it will be recognized as of equal importance that every provision be made against loss by fire, or other cause, in the selection of heating equipment. Admitting that the actual financial loss of purely physical property could be covered by insurance, the interruption to school service might be serious, and no one could offer any defense of a scheme which might jeopardize the lives of school children, even tho it should show a lower cost, in dollars.

b. Classification of Systems According to Type of Building.

The following classification of buildings is entirely arbitrary and may be questionable in detail, but, in general, the adaptability of the several systems is as indicated. In every case where more than one system is mentioned for a given type of building the systems are listed in the order of their fitness, the most desirable being placed first.

1. Single-room building, no basement.
(a) Direct-Indirect heater installed in room.
2. Single-room building, with basement.
(a) Direct-Indirect single pipe steam system.
3. Two-room building, no basement.
(a) Direct-Indirect heater installed in each room.
4. Two-room building, with small basement.
(a) Direct-Indirect single pipe steam system.
5. Three-room building, with small basement.
(a) Indirect, gravity air circulating, one pipe steam system.
(b) Direct-Indirect, one pipe steam system.
6. Four-room building, two floors, with small basement.
(a) Direct-Indirect, vapor steam system.
(b) Fan-furnace system (where electric power is available).
7. Four-room building, two floors, with basement rooms used for school purposes but not for classrooms.
(a) Direct-Indirect, vapor steam system, on first and second floors; direct system in basement with aspirating vent flues and cowl ventilators.
(b) Fan-furnace system (where electric power is available).
8. Six-room building, with basement rooms used for laboratory or other school purposes.
(a) Fan-coil system (with electric power or low pressure steam engine).
(b) Direct-Indirect, vapor system on first and second floors; direct system in basement with aspirating vent flues and cowl ventilators.
(c) Fan-furnace system (where electric power is available).
9. Eight-room building, with basement schoolrooms.
(a) Fan-coil system. Toilets ventilated by motor driven suction fan.
(b) Direct-Indirect, vapor or vacuum system.
(c) Fan-furnace system (where electric power is available).
10. Moderately large buildings, with basement schoolrooms.
(a) Heating by direct radiation, ventilation by fan-coil system, toilets ventilated by motor driven suction fan. Air conditioning apparatus.
(b) Heating by direct radiation, ventilation by fan-coil system, toilets ventilated by motor driven suction fan.
(c) Fan-coil system, toilets ventilated by motor driven suction fan.

SHADE WITHOUT SHADOW



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JOHN MUNROE, Superintendent

Faribault, Minnesota,
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We like them very much and hope to use them in all our buildings. At present I would like to have you go ahead and fit out the McKinley school in this city. Yours very respectfully,

(Signed) JNO. MUNROE.

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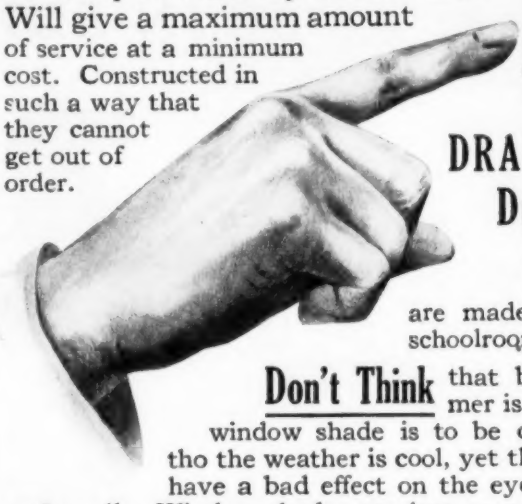

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11. Large buildings, with basement schoolrooms.

(a) Heat by direct radiation, ventilation by fan-coil system, automatic temperature control, air conditioning apparatus, ventilation of toilets and service rooms by suction fans.

(b) Heat by direct radiation, ventilation by fan-coil system, air conditioning apparatus, toilets ventilated by suction fans.

(c) Fan-coil system, air conditioning apparatus, toilets ventilated by suction fans.

In all cases, for all floors when no specific provision is made above, it is understood that aspirating vent flues and ventilating cowls will be installed.

Where not specifically provided for above, it is understood that special provision will be made to ventilate toilets, by some suction exhaust device.

Insofar as possible, wherever twenty or more people are kept continuously in one room for more than one hour, or one hundred people for as much as one hour, it is recommended that forced ventilation be provided. Such installation can be made to adequately care for all auditoriums and large lecture or classrooms.

In concluding his report, Prof. Veal draws seven interesting lessons from his study of schoolhouse heating and ventilation as it exists in the state of Indiana under the present law and the present practice of boards of education and heating contractors.

Conclusions.

1. While the law requires a heating capacity sufficient to maintain an indoor temperature of 70 degrees F., in all kinds of weather, it does not specify any maximum temperature limits; and this condition exists in spite of the fact that the injurious effects of overheating constitute the only undebated issue regarding ventilation.

2. No provision is made as to the point, or number of points, at which room temperature shall be observed during school hours. Thus, no specific plan is laid down for ascertaining that the temperatures are proper and uniform thruout the room.

3. It is compulsory that air be taken from outside, but no provision is made against the use of air containing excessive dust particles or other impurities.

4. While carbon dioxide in the air in quantities likely to occur in a schoolroom, cannot be considered injurious to health, its presence in occupied rooms is regarded as an accurate measure of the air supply and distribution in such rooms. For this reason it is recommended by no less authority than the American Society of Heating and Ventilating Engineers that a carbon dioxide test of proper supply and distribution be applied; yet, no such provision is made by the law.

5. While the excellent qualities of the fan-coil system are recognized, it is readily admitted that conditions are not such as to warrant its use in all cases. Many times its cost renders it entirely prohibitive. In such cases the direct-indirect system offers the best substitute considering both cost and results, since this system yields results practically equal to those obtained with the gravity direct and, in general, possesses more commendable features than any other, excepting only the fan-coil system.

6. Evidence is lacking to show that as a permanent equipment for schoolhouse heating and ventilating, a well designed and constructed system of a theoretically poorer type will render better satisfaction than a poorly constructed, cheap system of a theoretically better type. Furthermore, a mediocre type of apparatus, when given careful, intelligent attention, will yield more satisfactory results than can be attained with the finest system in the hands of an ignorant and inexperienced operator.

7. Finally, selection of all equipment and attendants should be made with the idea of safeguarding the expenditure of public money and the loss of property, and, more especially, the health and lives of school children.

SCHOOL FINANCE.

A reduction of twelve cents in the city, school and county tax of Chicago and Cook County has been ordered by the County Court. Altho the taxes for 1916 have been paid it is estimated that eight hundred taxpayers will profit by the court's action. The reduction on the tax rate is divided into six cents for schools, five cents for the city and one cent for the county.

The court holds that the taxing bodies erred in adding to the levy as allowed by law, a lump sum of about $600 after such provisions had been made in the regular levy.

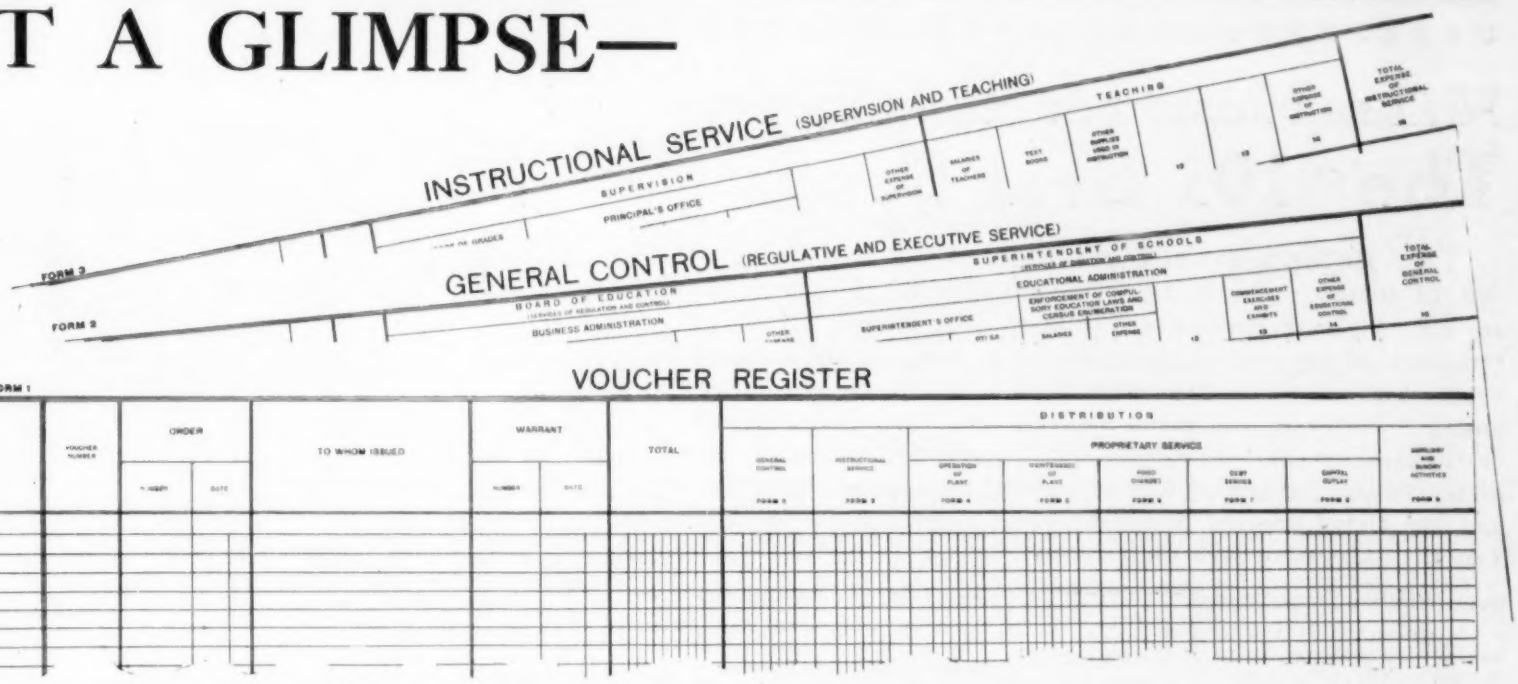
The Pennsylvania State Board of Education has announced an appropriation of $18,000,000, $14,767,000 of which will be used for the elementary schools. The appropriation which was passed by the last legislature is divided as follows:

Elementary schools, $14,767,000; borough and township high schools, $750,000, vocational schools, $300,000; agricultural schools, $200,000; county superintendents' salaries, $220,000; normal school tuition, $600,000; normal school maintenance, $416,000; normal school repairs and extensions, $139,000; payment of the debt on normal schools, $325,000; purchase of normal schools, $25,000; education of blind babies, $8,000.

The Minneapolis board of education has adopted a budget of $2,932,847 for the school year 1917-18. The budget provides for an increase of $114,809 in salaries of teachers and a decrease of $135,065 in textbook supplies and other items. It is pointed out, however, that the present conditions will make it necessary to raise the number of pupils to a teacher from 37 to 45.

Supt. Frank O. Draper of Pawtucket, R. I., has been given permission to exercise his discretion in the retention of married women teachers whose husbands are in army service.

JUST A GLIMPSE—



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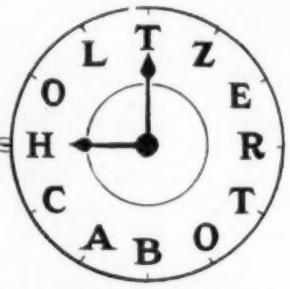

CLASS ROOM BUZZER

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CORRIDOR BELL—

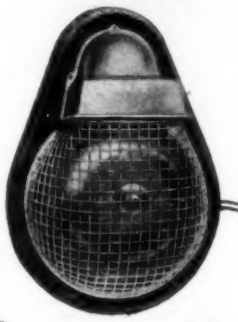
Metal case—dust proof—enclosed terminals—triple silver contacts.

Loud clear tone—can easily be heard above the noise in corridors.

Six-inch or eight-inch size best adapted for corridor use. Catalog No. 151020.

SCHOOL YARD GONG—

Designed specially for outdoor use. Absolutely watertight. Mounted on heavy mat, provided with hood and guard as a protection from missles and to prevent birds from nesting in gong. Catalog No. 151035.



Holtzer-Cabot Bells have been specified for years as a standard for use in connection with program bell systems. They have stood the test of time.

We have just published a very complete bulletin, No. 15E1. If you have not received your copy, send for it today.

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BOSTON, MASS.
6161-65 SO. STATE ST. CHICAGO
101 PARK AVENUE NEW YORK
1104 UNION TRUST BLDG BALTIMORE

THE SELECTION OF TEACHERS.

(*Continued from Page 21*)

other recognized normal school having a two years' course, and graduates of a college or university. Both of these must have had two years' experience in graded school.

High schools: Candidates must be graduates from a standard college or university, and must have had two years' experience in a like position outside St. Paul. Properly equipped teachers may be promoted from the grades to the high schools after ample experience.

WASHINGTON.

Elementary schools: No teacher, except a graduate of the local normal school, can be appointed before passing an examination prescribed by the board of examiners.

High schools: Applicants must present evidence of a college degree, or graduation certificate from normal school, such normal school graduate to have had at least five years' experience in high school. In addition, candidates must pass an examination, written and oral, involving subject matter and a consideration of the candidate's knowledge, culture, education, experience, general impressions, resourcefulness, record as a student and teacher, etc. A practical test or demonstration of ability to teach will be required of candidates in certain subjects. The written examination counts 60 credits; other examinations 40 credits. Seventy credits is the minimum passing mark.

In these 24 cities the value of university training for candidates for high school positions is well recognized. In thirteen of the 24 cities none but college graduates are eligible. In five other cities college graduation is required unless the candidate has had normal or other extended training and experience. In nine cities candidates must not only be college graduates but must also have had one or more years of experience or post-graduate study in education. In view of these facts the statement that it is "un-American" to require college training for high school teachers is unjustified.

On the other hand, college training is not required of candidates for positions in elementary schools in any of the 24 cities. Graduation from a normal school or a training school are the usual requirements. College training, however, is recognized as an important method of preparation for teaching, even in the elementary schools, for in eleven out of the 24 cities such training is specifically given credit.

In a number of the cities there is specific provision for the promotion of teachers from the elementary department to a position in the high school. In Omaha no such teachers are eligible for such promotion unless college or university graduates. In Buffalo eight years' experience as a public school teacher admits a candidate to the high school examination. In Chicago one year of successful experience in graded schools and graduation from an accredited college enables a candidate to take examination for high school positions. In Salt Lake City, a college graduate of marked efficiency in the elementary schools may be promoted to the rank of high school teacher.

These facts indicate that in the judgment of examining boards college trained candidates are best fitted for high school positions, while elementary school teachers are best prepared in normal and training schools.

These two types of training are radically different. The college or university provides a broad training in many fields of knowledge. Many of the facts learned by the students will never have a practical application in a high school or elementary school. The student, however, discovers his interests and his abilities. He learns how to think for himself. He is trained in research. He is not trained usually in methods of instruction.

The normal school or training school graduate, on the other hand, has specialized in methods of instruction and has spent but little time in studying the subjects covered in a university curriculum.

There is a suggestion in the preceding compilation that the high school teacher of the future will not only be a university graduate but will also be required to have considerable theoretical and practical training in pedagogical methods. Many cities already require that college graduates have a specified amount of instruction in teaching methods. Among the normal schools, there is a tendency to recognize the importance of giving the future elementary school teacher something more than a mere knowledge of the subject matter and method of presentation. Perhaps the elementary school teacher of the future will be trained in a normal college where due emphasis is placed upon those broader subjects now found usually only in the university.

It is not the convenience of the prospective teacher nor the opinion of the examining board which determines whether or not the candidate should be university trained. The child is of supreme importance. The teacher in the elementary school should receive that training which will best fit her to instruct a child of elementary school age. Whether this training may

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Chicago, Ill., 7/6/17.

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Dear Mr. Gibson:

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Yours very truly,

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best be obtained in normal school or in college must be determined by school officers who are qualified by experience to judge. The same rules must be observed regarding proper qualifications for high school teachers.

CHILD ACCOUNTING.

(*Continued from Page 30*)

Total normal years of schooling	4982
Years lost by slow pupils	604
	5586
Years gained by rapid pupils	239
Years actually required by all pupils	5347
	4982
Excess over normal years	365

So we see that these children have spent 365 years more time in school than they should have. For every year gained there were three years lost. I feel that no clearer demonstration could be found of the significant fact that our school system is adjusted to meet the demands of the brighter and stronger child rather than those of the average child.

What is the significance of these years lost in the money element? It is not enough to know the annual per capita cost for a child to be $22, unless we know something definite of what we purchase for that sum. At the present the unit of inquiry is the average expenditure for each child in the school system. In other words, we know how much it costs to keep a child sitting at his desk for one year. The unit of inquiry which should concern us, however, is the one which tells us how much it costs on the average to enable the child to take one step forward on his educational path. If the time lost is more than the time gained in a system then of necessity the per capita cost of one year's progress must be more than the per capita cost of keeping the child in school one year.

Every school system where the school years lost amount to more than those gained pays an educational tax, the size of which is determined by the excess of years lost over years gained and the annual per capita cost of education. In Kane the per capita cost for elementary schools is about $22.

The excess of years lost was 365, or there would be an additional cost of 365 x $22 = $8,030. This is the cost of the wrong adjustment of courses of study and promotion to the abilities of the children of our schools. Again the cost of a year's progress would be $22 plus the per cent of actual years of schooling more than normal. In Kane we find this per cent to be 107. As the actual time required by the children to reach their present grades is 107 per cent of the normal time, the cost of completing the work of each grade is 107 per cent of the cost of keeping the child in school one year or $23.54.

Thus we see the relation in percentages between the normal time and actual time required, and how it affects the cost of carrying a child forward one grade as compared with merely keeping him in school one year.

We can never hope to bring about an appreciable diminution in the number of those retarded until parents are more fully enlightened as to their duties and responsibilities. So you see I still hold that after all the school is responsible to educate both child and parent. This is what we are trying to do in Kane, and in a few years' time expect to reduce retardation as much as possible and at the same time make the school the guiding influence of the community, fitting children to achieve success in school work and later in the world.

NUMBER OF CHILDREN BY GRADES AND TOTAL NORMAL YEARS OF SCHOOLING OF KANE CHILDREN.

Grade	Number	School years at normal progress		Total normal years of schooling
1	196	x 1	=	196
2	164	x 2	=	328
3	185	x 3	=	555
4	149	x 4	=	596
5	165	x 5	=	825
6	162	x 6	=	972
7	114	x 7	=	798
8	89	x 8	=	712
Total	1224			4982

Total normal years of schooling	4982
Years lost by slow pupils	604
	5586
Years gained by rapid pupils	239
Actually required by all pupils	5347
Normal requirement	4982
Excess over normal years	365
1 year slower than normal	295
2 years slower than normal	90
3 years slower than normal	32
4 years slower than normal	7
5 years slower than normal	1
Or a loss in a year of	604
1 year faster than normal	220
2 years faster than normal	8
3 years faster than normal	1
Or a gain in years of	239
Year's loss exceeding year's gain	365

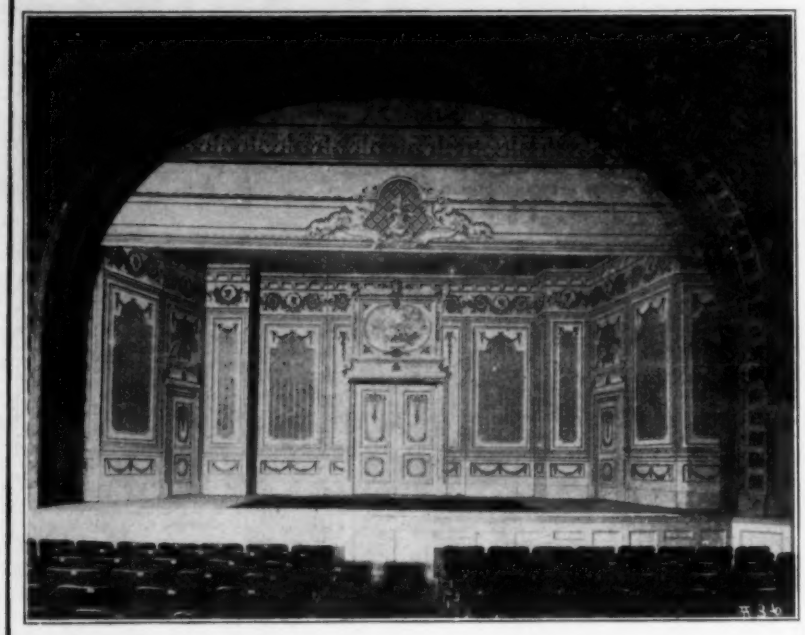
107 per cent actual years of schooling over normal years.

$22 per capita cost of school year.

365 x $22 = $8030 additional educational tax.

The per capita progress rate would be 107 per cent of $22 = $23.54.

Are You Ready?



For the Opening of Schools?

Is your stage in condition? Have you sufficient scenery, as well as the right kind of scenery? If not, remember there will be other affairs after commencement exercises are over, and right now while you're thinking about it, is the right time to get your stage in order.

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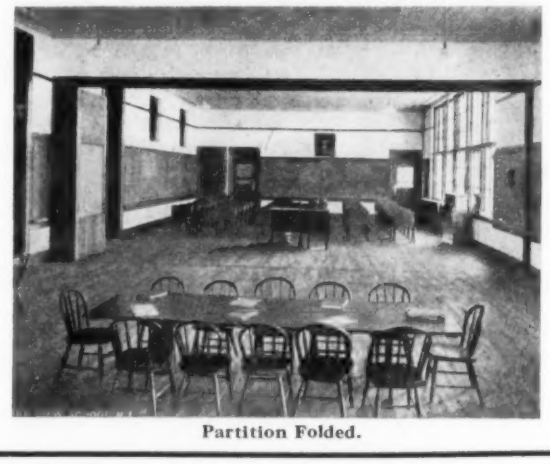

Partition Folded.

THE COST OF HEATING AND VENTILATING SCHOOL BUILDINGS.

(Concluded from Page 26)

buildings and those without any means of ventilation except the windows—or "natural ventilation" as it sometimes is very considerately termed. Such separations are not borne out in the costs obtained for the fan ventilated buildings including all those covered by Notes 2, 5, 6 and 21, which do not show higher costs than gravity buildings covered by Notes 8 and 9. A summary for the costs per one thousand cubic feet gives the following:

Fan Ventilated.

No. 1 to No. 6	$3.09
No. 13	1.24
No. 25 to No. 32	1.44
No. 33	.86
No. 35	1.27
No. 36	1.57
No. 37	1.74

Gravity Ventilated.

No. 7 to No. 12	$3.26

Natural Ventilated.

No. 34	$0.93

The average cost of fan ventilated buildings is obtained as follows:

$3.09 x 6 equals	$18.54
1.24 x 1 equals	1.24
1.44 x 8 equals	11.52
.86 x 1 equals	.86
1.27 x 1 equals	1.27
1.57 x 1 equals	1.57
1.74 x 1 equals	1.74
$36.74	divided by 19 equals $1.94, average cost for fan schools per 1,000 cubic feet.

Average cost per thousand cubic feet for fan ventilated buildings, $1.94.

Average cost per thousand cubic feet for gravity ventilated buildings, $3.26.

The figures indicate an undoubted saving by the use of fans probably due to better control of the air and the restricting of it to a given 30 cubic feet per minute. As far as the cost of the building (No. 34) with natural ventilation is concerned, its cost need not be taken too seriously, and it is also noted that another building in the same district (No. 33) has actually a lower cost, altho fan ventilated.

The price of coal seems to be a great deal more of a determining factor than the system of ventilation, the lowest costs being maintained in the schools located near a coal producing district and the highest in the northern part of the country where extreme winter weather and the higher cost of coal both conspire to raise the cost of schooling.

HIGH SCHOOL PLANNING.

(Continued from Page 36)

It will be seen that the assembly hall and gymnasium wings, each of which has separate entrances for the public, may be separated entirely from the school, and used by the public, particularly in the evening, or they may be entered directly by the pupils of the school thru the main corridors in the daytime. The former capacity was 675; the present capacity is one thousand pupils.

Third Illustration—an "Illinois High School." In this case the management desire corridor control, and have therefore adopted the "T" plan for the academic and scientific portions. All of the elements referred to as desirable in both the New Trier and the Pontiac plants, have been retained insofar as they apply to the assembly hall, gymnasiums and natatorium. Because of a peculiar grade in the site, a high basement exists, and it has therefore seemed advisable to build the boiler rooms and power department, as well as the shops within the west wing, placed at right angles to the main axis.

The plan is interesting, because it embodies the four station per pupil idea. The capacity is twelve hundred pupils; as many schools are conducted the capacity will be fifteen hundred pupils.

Fourth Illustration — a "Michigan High School." As stated above this plan includes all of the top light advantages of the New Trier and Illinois schools. The units may also be built at various times, postponing portions if necessary in order to spread the expense over a greater period.

The item of control in this case differs radically from that in the Illinois school—in that plan the control is in the hands of the principal and his assistants in the office, located between the two main entrances, the principal being less desirous of controlling the public than he is of controlling the pupils. While the principal in the school illustrated in the fourth plan does not give up his control of the pupils, his clerks at the counter have absolute control of both pupils and the public as they enter the center foyer, from which they proceed directly, on the one hand to the auditorium, and on the other hand, to the gymnasium, and by proceeding directly to the north, the pupils enter the locker rooms, corridors and stairways.

The study halls illustrated in the fourth plan are frankly removed from the principal's office and are under the control of separate teachers

Studebaker SCHOOL BUSSES

—built by men who *know*

The development of a practical way to transport school children has materially helped in the successful consolidation of rural schools.

The solving of transportation problems for 65 years has given Studebaker expert knowledge in producing vehicles of every description. This experience has enabled Studebaker to build school busses that will meet every requirement of consolidated school transportation.

The Studebaker School Bus is safe, sanitary and well-ventilated—the standard of passenger vehicle construction—and built especially to carry children.

Parents are vitally interested in the safety of their children—and naturally hold the school board responsible for their safety enroute to and from school. Any board will be safeguarding the children's well-being by using Studebaker School Busses.

Driver sits on an individual seat apart from the children, with glass doors on both sides of him and window in front. He gives his undivided attention to driving and the safety of his passengers.

Built with 10, 12 or 14-foot cut-under bodies, with glass or curtain sides—and with low-down short-turn gears or with full platform gears with straight side bodies.

Catalog No. 1114 shows large illustrations and gives detailed views of construction. It will be sent on request. If you want our representative to meet with your board—tell us when

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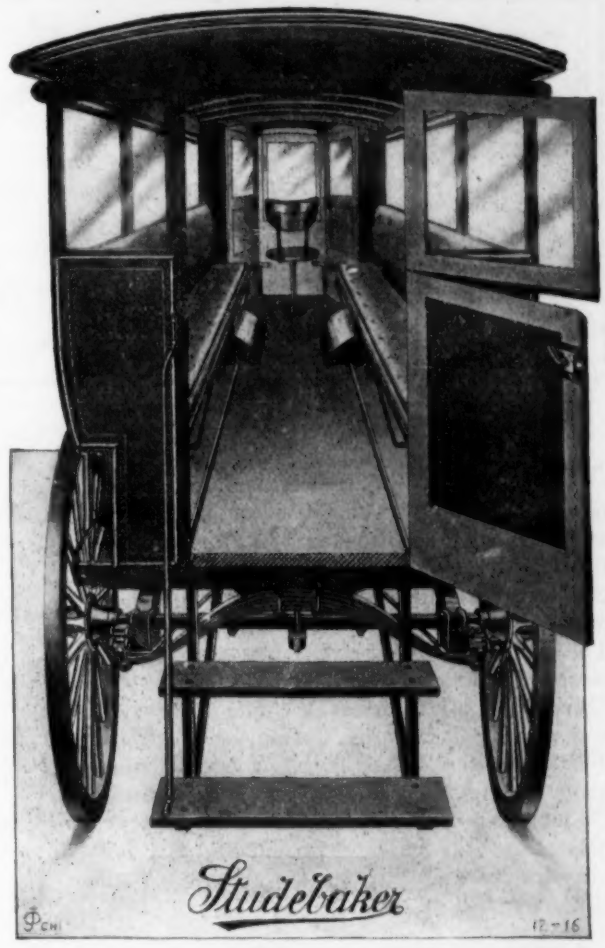

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or monitors and are related closely to the classrooms, laboratories, the commercial and art departments, as well as the shops on the first floor.

This plan is on the basis of a seat in the study hall for each pupil, and has not yet been related to the coming idea for directed study. This plan if incorporated in the organization of the school will make some changes in this portion of the structure. This fourth plan is on the basis of three and one-half stations per pupil, and is rated according to our method, as a twelve hundred pupil capacity high school.

COMING CONVENTIONS.

Oct. 10-12. Upper Peninsula Educational Association (Michigan), at Escanaba. G. L. Brown, Secy., Marquette. Probable attendance, 800.

Oct. 18-20. Illinois Valley Section (Northern Illinois Teachers' Association) at Ottawa. W. A. Paxson, Secy., Hennepin. Probable attendance, 2,000.

Oct. 19-20. Northwestern Wisconsin Teachers' Association at Eau Claire. Mabel Ahlstrom, Secy., Eau Claire. Probable attendance, 1,800. There will be a commercial and educational exhibit.

Oct. 24-27. Washington Educational Association at Tacoma. O. C. Whitney, Secy., Tacoma. Probable attendance, 4,500. There will be a commercial and educational exhibit.

Oct. 25-26. Maine Teachers' Association at Bangor. Glenn W. Starkey, Secy., Augusta. Probable attendance, 3,000. There will be a commercial and educational exhibit.

Oct. 25-27. Rhode Island Institute of Instruction at Providence. M. Davitt Carroll, Secy., Providence.

Oct. 25-27. East Tennessee Teachers' Association at Knoxville. D. S. Burleson, Secy., Johnson City.

Oct. 26. Connecticut State Teachers' Association at New Haven, Hartford, New London and Norwalk. S. P. Willard, Secy., Colchester. Probable attendance, 5,500.

Oct. 26-27. Northwestern Ohio Teachers' Association at Toledo. Miss Minnie Hale, Secy., Upper Sandusky. Probable attendance, 4,000.

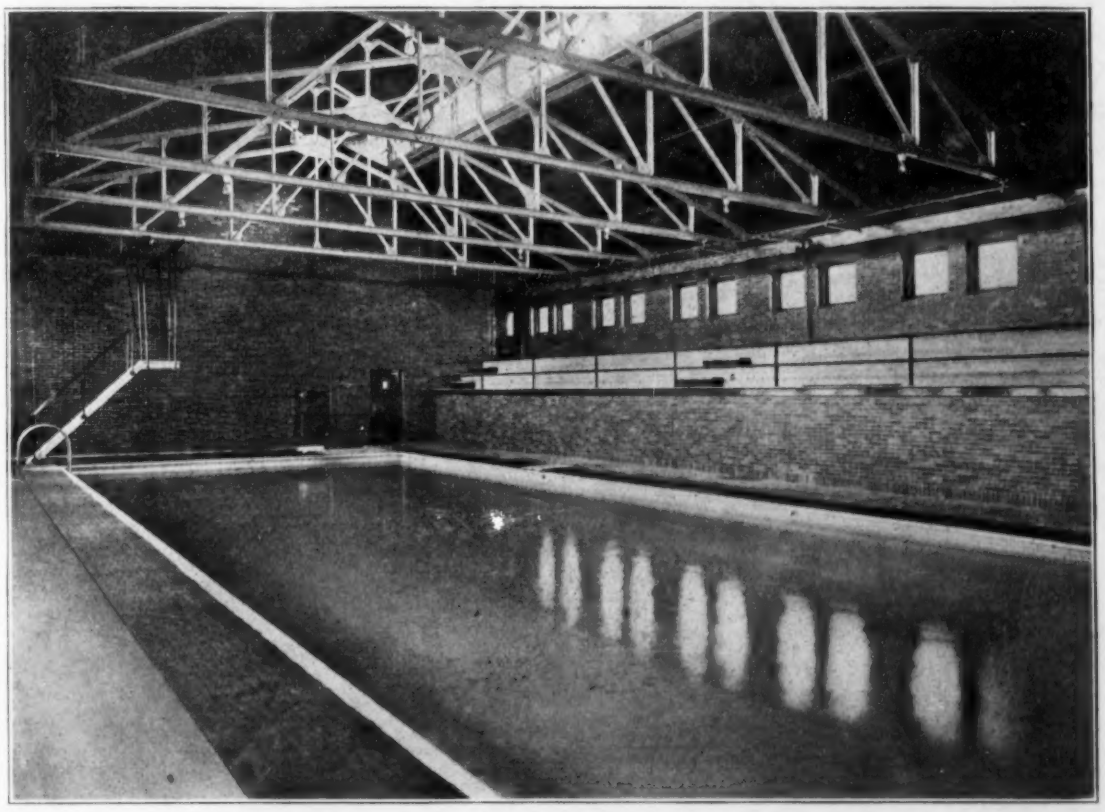
Oct. 29-31. Colorado Education Association at Grand Junction. H. B. Smith, Secy., Denver. Probable attendance, 4,000. There will be a commercial and educational exhibit.

Oct. 31-Nov. 2. Colorado Education Association at Pueblo. H. B. Smith, Secy., Denver. Probable attendance, 4,000. There will be a commercial and educational exhibit.

Oct. 31-Nov. 2. North Dakota Educational Association at Bismarck. E. R. Edwards, Pres., Jamestown. Probable attendance, 1,000.

Oct. 31-Nov. 3—Indiana State Teachers' Association at Indianapolis. George L. Roberts, Pres., Lafayette. Probable attendance, 12,000.

Oct. 31-Nov. 3. Minnesota Associated School Boards (Minnesota Educational Association) at Minneapolis. Mrs. H. Witherstine, Secy., Rochester. Probable attendance, 100.



Natatorium, New Trier Township High School, Kenilworth, Ill.

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What She Should Have Asked For.

The college girl was spending the summer visiting her old aunt in the country, and had been amazed to find that she could get almost anything at the country general store. Anxious to make the clerk admit that there was something that he didn't have she approached him one day and asked him for a copy of Browning. The young man pursed his lips and said he'd see; but after a short, hard search he returned. "I'm sorry, Miss," he said, "we have blacking and whiting and bluing, but no 'browning'."

Filled with delight the young woman rushed home and told the joke to her aunt. But the old lady only looked at her in mild disapproval. "My dear," she said, "you should have asked him for varnish in the first place."—Ladies Home Journal.

A small boy, taking an examination in United States history, handed in the following composition:

"General Braddock was killed in the revolutionary war. He had three horses shot under him and a fourth went thru his clothes."

Making It All Right.

An old lady who had been introduced to a doctor who was also a professor in a university, felt somewhat puzzled as to how she would address the great man.

"Shall I call you 'doctor' or 'professor'?" she asked.

"Oh! just as you wish," was the reply; "as a matter of fact, some people call me an old idiot."

"Indeed," she said sweetly, "but then, they are people that know you."

A Real Lady.

"I tell you, Maggie," said Willie Brown, "teacher's a perfect lady, all right."

"How do you know she is?" demanded Maggie. "You ain't known her but a few days."

"It's easy tellin'," rejoined Willie. "I know she's a perfect lady, because she makes me feel polite all the time."

School Board English.

The following is an accurate copy of a notice attached to a schoolhouse in northern Wisconsin:

Manitowish, Iron Co. Wis.

August 3-1917.

To the Publice
that there has Bin voted up on By the tax Payers a transportation from Rice Lake at Swan Nelsons to School house at Spider a Distance of 3 miles and ½ for the Purpes of transfern the children to and fro to School and is also Let out to the Lowest Bidder for 9 months and all Bids must Bee Mailed to Clerk of Joint District No 1 addres.
Manitowish Wis Robert F. Loveless and Bidds must Bee all in on August 15-1917

Robert F. Loveless
Clerk.

The Difference.

Bud—"What is the difference between an ordinary co-ed and a college widow?"

Weise—"One stays four years and the other stays for years."

Disappointed.

"Do you find that set of books you bought interesting?"

"Not very," confessed the man who tries to improve himself. "But I'd feel better about it if the man who comes around to collect were as good an entertainer as the one who sold me the books."—Washington Star.

Obeyed Instructions.

The teacher of a large school sent one of her pupils to buy a pound of plums from a fruit vendor outside, relates the Buffalo Enquirer, and as she handed the little girl ten cents, said:

"Be sure, Mary, before buying the plums to pinch one or two, just to see that they are ripe."

In a little while the girl returned with flushed face and a triumphant look in her eyes. Handing the teacher the bag of plums, she placed the money on the desk and exclaimed:

"I pinched one or two, as you told me, and when the man wasn't looking I pinched a bagful."

A Practical Reformer.

Dorothy's mother is a suffragette of advanced type. Dorothy is a dear little girl in a primary grade and somewhat inclined to copy her elders. One day her teacher received a note from the secretary of the school board, but waited until after class to read it. Dorothy returned for some books, and caught tears in the teacher's eyes (the latter had been denied an increase in salary upon which she had based large hopes), and said:

"Why are you crying?"

The teacher laughed and said: "The naughty old school board isn't nice to me!"

Dorothy took hold of the teacher's hand with both hers and said very seriously, "Don't you cry any more. When we get the vote we women will correct such things!"

A Sad Case.

This story in Everybody's Magazine tells of an absent-minded professor in a famous eastern seminary:

One evening, while studying, he had need of a bookmark, and seeing nothing else handy, he used his wife's scissors, that lay on the sewing table. A few minutes later his wife wanted the scissors, but a diligent search failed to reveal them.

The next day the professor appeared before his class, and opened his book. There lay the lost scissors. He picked them up, and holding them above his head, shouted:

"Here they are, dear!"

Willing to Oblige.

"Willie," said the teacher, "you have spelled the word 'rabbit' with two t's. You must leave one of them out."

"All right," said Willie, cheerfully; "which one."

A Sin of Omission.

"What's the matter, Johnny?" asked his mother as her offspring came into the house with a tear-stained face.

"I got licked in school for something I didn't do," bawled Johnny.

"That's an outrage! What was it that you didn't do?"

"An example in arithmetic."

Helping Out.

"And has your daughter's course in domestic science interested her any in the housework?"

"To some extent. Occasionally she condescends to show her mother wherein her old fashioned methods are all wrong."

In the Days of Real Sport.

—Briggs, Chicago Tribune.

Educational Trade Directory

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

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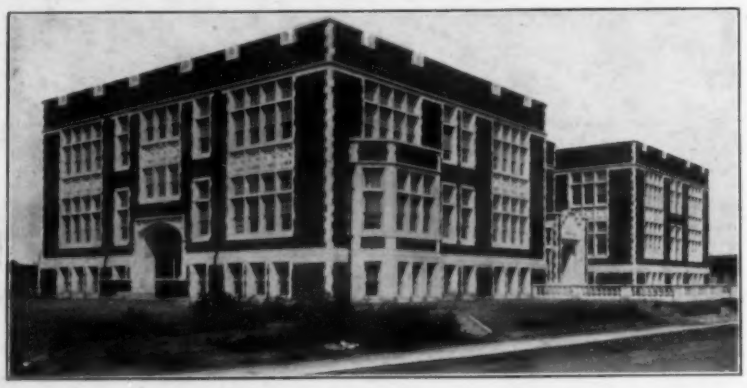

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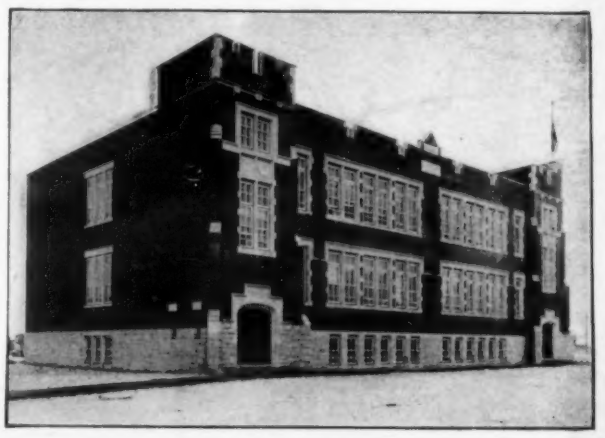

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